

Applicant's Closing Submissions

1 INTRODUCTION

- 1.1 This closing sets out the case for the Llanbadarn Fynydd project, which means summarising not only the disputed matters heard in evidence at inquiry but also setting out an amount of surrounding context which is important in making the decision but not necessarily contentious in itself. In presenting the closing orally, the concentration will be on the matters in dispute.
- 1.2 Whatever is happening in Scotland with the Viking litigation, in Wales Section 36 and the grant of a deemed planning permission remains open to all the applicants before you, without further inquiry into their specific licensing arrangements. We have clarified before this closing session that Nuon UK Ltd are the properly named applicant, albeit Vattenfall is the name under which the company now trades.
- 1.3 This closing allows the key tests that you face to be set out, together with the evidence to apply to them. However, it allows something additional to be done, which is to set right any perception there may have been, or may sought to have been created, that the Llanbadarn Fynydd project is somehow separate in this inquiry, in facing hurdles to securing approval not faced by the other schemes.
- 1.4 The history of this application would suggest no such thing, but from the point at which the Council's Form B was lodged reciting cumulative landscape concerns similar to the other schemes, a case against Llanbadarn Fynydd in particular began to develop from quarters where there had hitherto been no concern, initially on landscape and then on heritage grounds. We have, of course, answered the case put against us, however recent in origin, and where we believe we have now got to is to have restored the status quo that existed before the inquiry, of there being no sustainable case objectively to oppose this development and with the resolution of the one issue that had been holding up development to date, that of the strategic transport route through and south of Newtown, permission can now be granted.

2 NEED AND ENERGY AND POLICY

- 2.1 We can start with the uncontentious proposition that extant Government policy is an important material consideration in this Inquiry and cannot be challenged or its merits debated. (David Bell Energy and Planning Policy Statement of Case para 4.1.2)
- 2.2 EN – 1 recognises (para 1.7) that some significant adverse effects are unavoidable from such developments (para 3.3.10), that Government is committed to increasing the

National need

renewable generation capacity from onshore and offshore wind and that (para 3.3.15) in order to meet 2050 energy obligations, there is an urgent need for new energy NSIPS to be developed over the next 10 to 15 years (David Bell Energy and Planning Policy Statement of Case para 4.2.7, 4.2.9 and 4.2.11).

- 2.3 EN-1 forms this need to a presumption in favour of granting consent for major energy infrastructure given the level and urgency of need. Decision makers are advised to take potential benefits into account, balancing contribution to the need for energy infrastructure, job creation and long-term or wider benefits, against potential adverse impacts (David Bell Energy and Planning Policy Statement of Case para 5.2.5).
- 2.4 At a European level, renewable energy generation targets are ambitious, the "20 20 by 2020" EU package includes a 16% reduction in UK greenhouse gas emissions by 2020 and for 15% of all UK energy consumed to come from renewable sources by 2020.
- 2.5 UK targets are not capped to ensure that decision makers do not stop consenting projects because interim targets are achieved. (David Bell Energy and Planning Policy Statement of Case para 4.4.7)
- 2.6 The UK pipeline to 2020 in terms of renewable and onshore wind may be reasonably healthy, but that largely depends on proposals in the planning system, like Llanbadarn Fynydd, coming to fruition and Government ambitions extend beyond 2020. (David Bell Energy and Planning Policy Statement of Case para 4.4.9)
- 2.7 The Annual Energy Statement 2013 (CD/SPM/POL/01, para 3.28) confirms that the UK is now at 4.1% against its target to source 15% of energy from renewable sources by 2020, a substantial shortfall, and that moving forward, support for large scale renewable power generation investments will be through Contracts for Difference. (David Bell Planning Balance Statement para 5.2.6)
- 2.8 The Update to the UK Renewable Energy Roadmap (VATT-SOCIO-001) in November 2013 confirms onshore wind continues to have an important part to play in UK energy policy and a long term investment framework underpins that commitment. (David Bell Planning Balance Statement para 5.2.28)
- 2.9 HM Treasury National Infrastructure Plan December 2013 (VATT-SOCIO-008) continues to make clear that energy, including renewable energy is a priority sector in the Government's NIP. (David Bell Planning Balance Statement para 5.2.38)
- 2.10 Alliance evidence that there is already enough development developed or consented to meet 2020 targets fails to look beyond 2020, ignores the actual reliance there will have to be on renewables for energy generation, relies on an interpretation of subsidy policy that is misplaced in this inquiry and is at odds with policy recognising need in EN-1 and PPW6. (Dr Constable Planning Balance Session)

- 2.11 PPW Edition 6 (CD/VATT/PLA/018) summarises UK and Welsh policy, targets and obligations for increasing the use of renewables and recognises (paras 12.8.13) an onshore wind target in Wales of 2GW by 2015 /17.
- 2.12 This follows TAN 8 in which Welsh Assembly Government set a renewable energy target of 4TWh per annum by 2020 as part of what was then the wider UK national target of generating 10% of electricity consumption from renewable sources and identified a need to plan for 800MW of installed capacity of onshore wind by 2010. (David Bell Energy and Planning Policy Statement of Case para 5.4.2)
- 2.13 This Welsh target of 800MW by 2010 was missed and is still being missed, leaving a significant shortfall against the target of attaining 2GW of capacity by 2015/17. (David Bell Energy and Planning Policy Statement of Case para 4.4.3)
- 2.14 PPW6 states (CD/VATT/PLA/018 para 12.8.13) that TAN8 "*identifies 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....*" and that they will be required to contribute to the UK and European targets. (David Bell Energy and Planning Policy Statement of Case para 5.3.6/7).
- 2.15 There is recognition (para 12.8.14) that cumulative impacts can be a material consideration in SSAs but should be balanced against the need to meet the Welsh Government's aspirations. The installed capacity targets given in TAN8 Table 1 are intended to assist the planning process but are not seen as definitive capacity for the area as there may be practical, technical or environmental reasons why the capacity is more or less. (David Bell Energy and Planning Policy Statement of Case para 5.3.8 and 5.4.4)
- 2.16 This new national planning policy is an important re-validation of the currency of TAN8 meaning that it should continue to attract significant weight. (David Bell Planning Balance Statement para 6.3.11)
- 2.17 Annex D of TAN 8 provided for the refinement of the SSAs, a two stage process in this case by Ove Arup in 2006 (CD/COM/017) and again in 2008 in light of appeal decisions and turbine height increases (CD/COM/018) by which SSA C became a single area, with eastern and western parts linked across the Ithon Valley to the north of Llanbadarn Fynydd (David Bell Energy and Planning Policy Statement of Case para 5.5.3). All five schemes are accepted to be within the present SSA boundaries.
- 2.18 The Second Draft Interim Development Control Guidance (CD/COM/019) 'formally authorised' by PCC for development control recognises the refined SSA boundary (para 11.1) stating that "*It is likely that SSAs in Powys will become prime examples of wind farm landscapes with intervisibility from Dyfnant Forest in the north to Llandinam/Llanbadarn Fynydd in the south. This is an accepted consequence of TAN 8 ...*" and (para 8.4) that

"Within (and immediately adjacent to) the SSAs, the implicit objective is to accept landscape change." (David Bell Energy and Planning Policy Statement of Case para 5.5.8/9)

- 2.19 The Alliance case that no weight should be given to TAN 8 in terms of enumerated targets leads to the question of what policy would apply otherwise. TAN 8 provides what might be seen as a benefit by opponents of development in that it operates to hold back a proliferation of turbines outside its boundaries. Even the Ramblers anticipated adverse consequences if TAN 8 had no weight attached to it (Opening Session Policy Hearing).
- 2.20 The Alliance concern that fixing of SSA boundaries is a significant weakness in TAN 8 because of the lack of Strategic Environmental Assessment is countered by the level of evidence relied upon in the pre and post-TAN 8 reports. (Opening Session Policy Hearing and Planning Balance Session)
- 2.21 As to whether Llandinam, as a repowering, should count towards TAN 8 targets at all, there remains argument, although Llandinam certainly sees itself outside those limits (Opening Session Policy Hearing and Planning Balance Session) but if TAN 8 targets are treated as guides only, as they should be, it is easier to allow for any uncertainty about this.
- 2.22 Equally TAN 8 is not a straightjacket, with EN3 (para 2.2.1) looking to avoid slavish adherence to policy and thus treating TAN 8 targets as guidance only when considering what harm would arise if targets were exceeded (Opening Session Policy Hearing).
- 2.23 The WG Minister letter of July 2011 (**CD/COM/020**) referred to the Garrad Hassan study (**CD/COM/031**) and identified a maximum capacity of circa 1,700 MW for all 7 SSAs with 300MW anticipated from developments under 25MW equating to the 2GW target aspiration in 'A Low Carbon Revolution for 2020 – 2025'. The figure derived as the maximum capacity for SSA C is 98MW. (David Bell Energy and Planning Policy Statement of Case para 5.5.10)
- 2.24 The recent Bryn Llywelyn decision included the Inspector reporting that it was not his place to challenge these figures (Insp Q Planning Balance Session), but that does not require you to read into them things that aren't there, such as treating them as proxies for the finite environmental capacities of each SSA, as they were not proposed within TAN 8 as such, nor are they seen as good indicators of where the environmental capacity of an SSA might be, (David Bell Planning Balance Session) and certainly not in the absence of a full investigation of the actual impacts of any scheme. A pure arithmetic approach is in any event unhelpful as the capacities Garrad Hassan were considering in 2005 based upon 2MW machines could change significantly with technology changes and increase in turbine capacity (Insp Q Planning Balance Session).
- 2.25 Treating the Minister's position as an unqualified requirement that the SSA figures are treated as maximum capacities, would contradict TAN8, which expressly states that the

WG Minister's
letter

SSA capacity targets are not definitive capacities. (David Bell Energy and Planning Policy Statement of Case para 5.5.12) but that is not being required of the decision maker here.

- 2.26 In the Brechfa Forest West Wind Farm Examining Authority report to the SoS it was noted of TAN8 "indicative" capacity targets that these were "... *intended to assist the planning process and not to be seen as the definitive capacity for the area*" (David Bell Energy and Planning Policy Statement of Case para 5.6.2).
- 2.27 In the Pen Y Cymoedd Wind Farm Section 36 decision the SoS noted that "*taking into account the maximum capacity of the development (299MW) the total possible for SSA F would be 464.5MW...i.e. a possible exceedance of some 8% of the maximum capacity*". That was acknowledged to occur if all applications were consented and constructed and if that materialised, the decision makers would have concluded the individual and cumulative visual impacts of each were acceptable. (David Bell Energy and Planning Policy Statement of Case para 5.1.15)
- 2.28 The approach in previous decisions was recognised at the Opening Session as giving a steer on policy interpretation. Whatever weight is given to targets, the planning balance on the merits of each application is more important (Opening Session Policy Hearing). We came back to this in the Planning Balance Session and identified that whilst the WG letters could be seen as a simple statement that it does not want to see development in excess of those capacities that wish has to be linked to the underlying concerns described in those letters, that of respecting the finite environmental capacities of the SSAs and avoiding intrusive large scale grid development. Provided those concerns can be shown to have been met, which has been done here, there is no contradiction between WG letter, TAN 8 and allowing this development, even if a numerical exceedance of the 98MW figure occurs. Permission should be granted in such circumstances (David Bell Planning Balance Session).
- 2.29 NRW support this approach of a merits led interpretation of the TAN 8 capacities, PCC similarly so, but with a warning that the more you exceed the capacity the greater is likely to be cumulative impacts (Peter Minto, Martin Carpenter Planning Balance Session) - against which we can note that PCC takes no exception to the cumulative impacts of the s36 schemes alone.
- 2.30 From all of this material we see a very strong policy drive to continue to develop renewable energy. International and national commitments have been made to address the effects of climate change and to achieve greater security in the domestic supply of energy. (David Bell Planning Balance Statement para 5.3.1)
- 2.31 Renewable energy policy consistently shows that the UK and Wales needs urgently to increase its delivery of renewable energy sources and that on-shore wind is considered an important element of land-based renewable energy generation, in the overall energy

Precedence of national policy

mix and this proposed development can make a significant contribution to unmet Welsh, UK and EU targets for renewable energy generation. (David Bell Planning Balance Statement para 5.3.3)

2.32 The question whether there is divergence between WG policy and national policy (especially the NPS) is important, as the greater the consistency with national policy, the more weight that can be given by the decision maker. We adopt the argument that full weight can be given to TAN 8 as being consistent with national policy provided it is not interpreted as imposing absolute limits on installed capacity and in that way the Griffiths letter is not being disregarded.

2.33 PCC in its opening stated that the decision maker, faced with a number of applications should be seeking the "least damaging result." (Opening Session Policy Hearing). What should be looked for instead is the approach that says what can be acceptably developed should be permitted, as there is need for all these developments. (Opening Session Policy Hearing)

3 LANDSCAPE AND VISUAL

3.1 PCC and NRW stances before and at inquiry

3.2 The landscape and visual case against the scheme has principally been that of PCC, which, according to its Outline Statement of Case (OBJ-002-OSOC-2) relates primarily to potential effects upon the Shropshire Hills AONB and that the application site and surrounding areas are "*almost entirely 'untouched' by wind farm development ... and would set a precedent for other wind farm development in the same landscape unit.*" (Ian Gates Proof, paragraph 1.3.2)

3.3 To put this into some context, PCC's, Planning Officer's appraisal in the Cabinet Report of 2012 noted that '*... the proposal is located in an area of medium to low landscape sensitivity...*' and that cumulative impacts with regard to existing wind farms such as Llandinam '*are considered to be acceptable.*' (Ian Gates Proof, paragraph 3.7.18).

3.4 Countryside Council for Wales (now NRW), the other main consultee charged with a landscape preservation function, does not object to the scheme. Its recommended change to minimise the impact of the scheme on landscape and visual amenity (to the access track from the A483) has been adopted. (VATT/LAN/013 and Ian Gates Proof, paragraph 3.7.2)

3.5 In forming its opinion CCW noted that '*Future likely wind farm development within the SSA will undoubtedly lead to cumulative impacts...However, TAN 8 implicitly accepts landscape change within Strategic Search Areas.*' (Ian Gates Proof, paragraph 3.7.3)

3.6 Criteria for assessing impacts : SNH

3.7 The developer has drawn on Scottish Natural Heritage (SNH) 'Guidance Assessing the Cumulative Impact of Onshore Wind Energy Developments' (Version 3, March 2012 CPL/LAN/007) and 'Siting and Design Windfarms in the Landscape' (Version 1 December 2009 VATT/LAN/002), which pose three thresholds of cumulative wind farm effect:

SNH Guidance

- *where windfarms are seen as separate isolated features within the landscape character type, too infrequent and of insufficient significance to be perceived as a characteristic of the area;*
- *where windfarms are seen as a key characteristic of the landscape, but not of sufficient dominance to be a defining characteristic of the area; and*
- *where windfarms appear as a dominant characteristic of the area, seeming to define the character type as a 'windfarm landscape character type.'*

(Ian Gates Proof, paragraph 2.2.2)

3.8 SNH "Siting and Design" guide (VATT/LAN/002, page 37) also lists key landscape principles with multiple wind farms as including, that :

- *Individual wind farms should generally appear visually separated from one another in a landscape, unless specifically designed to create the appearance of a single combined wind farm, and that*
- *Different forms of wind farm development should respond to different landscape character types, to ensure wind farm landscapes complement the landform in their positioning, extent and density.*

(Ian Gates Proof, paragraph 2.2.3)

3.9 Reviewing the landscape and visual evidence against these objective standards, as we have done, will assist in reaching the conclusion that the impacts are acceptable.

3.10 NPS Guidance on the Nature of Potential Effects

3.11 NPS EN-3 notes that the construction and operation of large commercial onshore wind farms will cause significant landscape and visual effects for a number of kilometres and that wind farms are a reversible form of development (CD/COM/002, para 2.7.17 and 2.7.48). Inevitable, significant effects do not mean consents should be refused, rather consideration has to be given to whether negative effects would significantly and demonstrably outweigh benefits. (Ian Gates Proof, paragraph 2.2.4)

NPS EN-3

3.12 A precautionary approach has been taken which assumes that the nature of the effects would be negative unless otherwise stated. (Ian Gates Proof, paragraph 2.2.5)

3.13 Wind farm development is visually permeable and views, although possibly interrupted, are not screened or prevented. Wind farms have a small development footprint that preserves the physical landscape elements. (Ian Gates Proof, paragraph 2.2.7)

3.14 Guidance on Acceptability of Impacts : The Arup Reports

3.15 Arup had two roles in respect of Llanbadarn Fynydd, first in authoring the reports by which PCC refined the SSA boundaries and second in reviewing the acceptability of Llanbadarn Fynydd, appointed to do so by PCC.

3.16 The ARUP refinement studies were referred to several times. The ARUP zones 2b, 4 and 5 that make up the site are agreed as having medium-low landscape sensitivity to this type of development (CD/COM/16 page 11 and 13) even without the presence of an existing windfarm, which was given as the reason for the medium low sensitivity of C11 on the western side of the valley (Kimblin XE Philip Russell-Vick). Ranked against impact on AONBs, settlements, RoW and National Trails (within 200m) those three parcels scored extremely well (CD/COM/16 Table 7b). PCC accept this information evidences acceptability of impacts (XE Philip Russell-Vick) but caveats that Llanbadarn Fynydd scores well in ARUP because it is well contained, rather than any qualitative judgement being applied to actual impacts. It is, however, hard to understand why being a well contained site shouldn't be a plus for the site.

Arup's
refinement of
SSA C in the
east

3.17 PCC seek to undermine the ARUP refinement work, notwithstanding it is their own document. They highlight failures to explain some matters, like why areas C2a and C2b have the same high landscape value but only one (the Llanbadarn Fynydd part) has been selected as suitable for development. However, a high landscape value doesn't inevitably mean unacceptable impacts from development (XE Ian Gates).

3.18 PCC state ARUP did not consider cumulative impacts, and it is accepted a formal cumulative impact assessment would be difficult to achieve outside a conjoined inquiry (XE Ian Gates). They accept that the significant impacts of the s36 schemes are contained within areas considered by ARUP (XE Philip Russell-Vick) so it is not a case of ARUP not assessing affected areas. ARUP filtered suitable and unsuitable areas, leading to boundaries between them, as between RDNRVS122 and RDNRVS128. PCC accepted that the authors did consider if there should be any exclusions, say at the edge of areas (Kimblin XE Philip Russell-Vick) but no such exclusion was made for example to Zones 4 and 5 because of proximity to the Cwm Nant Ddu (Arup 2008 page 28 Table 8b). PCC seem to suggest that development in suitable area 122 should not be allowed because there are two turbines in the less suitable area 128 and the wider development is adjacent to it (XE

Ian Gates). This was not agreed and the better argument is that the Applicant has assessed the suitability of areas in the round, and has taken care over transition areas.

3.19 In spite of its misgivings over the ARUP refinement, PCC does not argue that in principle, wind farm development should not take place in the Eastern part of SSA C. This concession seriously compromises PCC's claim that Llanbadarn Fynydd is simply unacceptable as it is "...in the wrong landscape" (XinC Philip Russell-Vick) When adding the Council's view that the "cluster" layout of the scheme responds reasonably well to the landform beneath it (XinC Philip Russell-Vick) and makes no suggestion to improve the design, as it did with the two other SSA C schemes, despite this layout having remained fixed since 2007 (XinC Ian Gates), we are left with PCC trying to hold an increasingly untenable position with its opposition to the actual impacts of Llanbadarn Fynydd alone.

PCC
acceptance of
development in
the SSA C east

3.20 It is accepted that the ARUP study and SSA boundary exercise compared landscapes at the widest possible scale, across Wales. (XE Philip Russell-Vick) This provides substantial reassurance that Llanbadarn Fynydd is simply not in the wrong landscape.

3.21 PCC's further criticism that ARUP does not contain an acceptability threshold holds no force. It was conceded that no guidance document could usurp the decision maker's role (XE Philip Russell-Vick) but that does not diminish the contribution the refinement exercise makes to substantiating the SSA's capacity to accommodate development. Gates remained firm that TAN 8 SSAs should be seen as a measure of the acceptability of development within them (XE Ian Gates).

3.22 PCC sought to establish that Llanbadarn Fynydd's landscape assessment relied upon the ARUP 2008 landscape criteria (XE Ian Gates), to argue that if a landscape sensitivity was medium-high it would be inappropriate for development. Gates did not concede that (XE Ian Gates) as his assessment used ARUP as a bridge to TAN 8, rather than the basis of the LVIA, which was a stand-alone exercise reliant upon Landmap as its base material (XinC and ReEx Ian Gates).

3.23 Llanbadarn Fynydd has been carefully designed to concentrate high magnitudes of landscape change generated by its operation in an area of comparatively low landscape sensitivity, (Ian Gates Proof, paragraph 5.2.27) that complies with TAN 8 Para 2.9 criteria (of being over 300m, predominantly plateau, sparsely populated, improved moorland with no historic designations) and Annex D para 6.5 criteria (of openness, a non-distinctive skyline, and limited time depth) (XinC Ian Gates). PCC's comment that TAN 8 was seeking an optimum balance of environmentally acceptable impacts was not disputed (XE Ian Gates), but it isn't clear how this equates with PCC's suggestion that the Secretary of State should not allow "more harmful" schemes (ReEx Ian Gates) to achieve that acceptable balance. Not that it is accepted this scheme is any more harmful than any other before this inquiry. Llanbadarn Fynydd is the only SSA C site that has consistently

Consistency
with TAN 8
design criteria

been most contained within the revised SSA boundary, (Ian Gates Proof, paragraph 5.2.28), but the relative impact of the schemes is not the issue before this inquiry.

3.24 The Arup Development Control Support Report (VATT/LAN/015) offered three landscape criteria to review the acceptability of Llanbadarn Fynydd (Ian Gates Proof, paragraph 3.7.6)

ARUP
development
control report

(a) Avoid distorting the landscape's sense of scale – in contrast with PCC's inquiry position in respect of the Cwm Nant Ddu Valley, ARUP acknowledged that such views would be rarely available. (Ian Gates Proof, paragraph 3.7.14)

(b) Avoid severe effects upon '*sensitive local landscape character*' - Arup attributed only medium-low landscape character sensitivity to large scale wind farms in the host areas. (Ian Gates Proof, paragraph 3.7.15)

(c) Avoid poor quality and cluttered wind farm layouts. On this criterion Arup concluded that it '*...would be located within a relatively large scale landscape and appears generally well laid out in response to the landscape setting.*' (Ian Gates Proof, paragraph 3.7.16)

3.25 The Council dismiss the ARUP assessment as repeating its earlier work in concluding the underlying areas were suitable for development (XE Philip Russell-Vick). You will hopefully feel more persuaded that the unanimity of the ARUP SSA studies, CCW involvement, a site specific ARUP study, PCC's officers at Committee and Mr Gates' evidence all point to acceptability of this development here and outweigh the one contrary landscape expert opinion tendered by the Council at inquiry.

3.26 The character of the receiving landscape

3.27 Key to the acceptability of development on this site is a detailed understanding of why the underlying landscape is accommodating of this type of development.

3.28 Llanbadarn Fynydd's landcover is dominated by improved and semi-improved grassland, converted to more intensive pastoral use than the moorland on Banc Gorddwr. It is divided into medium to large sized, regular-shaped fields with smoother and more verdant appearance than the surrounding predominant moorland. (Ian Gates Proof, paragraph 3.5.4) PCC agree and accept that the aerial photograph of Butterwell (Gates Appx LVIA 2) was a fair representation of field pattern from the site to Teme valley (XE Philip Russell-Vick) even if fields got larger towards the East.

Improved
agricultural
land
characterising
the site

3.29 Similarly PCC accept that post and wire fences to provide field boundaries rather than stone walls are characteristic of the area (XE Philip Russell-Vick). Together with the use of narrow, mixed species shelterbelts and clipped coniferous hedgerow boundaries to increase the sense of exposure away from the Cwm Nant Ddu and Gwenlas Valley. (Ian Gates Proof, paragraph 3.5.5)

- 3.30 Host LANDMAP VSAA descriptions of remoteness are balanced by modern development, mostly farmhouses surrounded by trees, outbuildings, barns, farm tracks, and sheep or cattle pens that remove any sense of 'wildness'. (Ian Gates Proof, paragraph 3.5.7). PCC does not challenge to this argument, partly because it said there are more intensively farmed landscapes in the UK, which tells us little, but partly because it would conflict with its case about differences with the moorland to the West (XE Philip Russell-Vick).
- 3.31 We will return to Landmap in more detail, but to set the scene on why this is an accommodating landscape, we can start with the Landmap database description for host VSAA RDNRVS122 that the landscape is '*discordant*' with the existing management being '*generally inappropriate*' because '*farming is generally too intensive and unsuitable...*' and '*intensive farming reduces integrity*'. (Ian Gates Proof, paragraph 3.5.9). These, together with "*the lack of distinctive features*" making the landscape "*not particularly memorable*" were accepted by PCC who fairly conceded that it could be seen why the assessor applied only a moderate value to this VSAA (XE Philip Russell-Vick). The other two host LANDMAP VSAA's (RDNRVS111 and RDNRVS128) are both transitional areas sharing similar improved and semi-improved grazing as much of RDNRVS122. (Ian Gates Proof, paragraph 3.5.10 and 11)
- 3.32 Differences between East and West of SSA C are advanced to support PCC's arguments, describing the West as massive and the East as smaller (XinC Philip Russell-Vick) and incised by valleys such as the Cwm Nant Ddu. However RDNRVS111 and RDNRVS122 are accepted by PCC as being described as large scale by the Landmap assessor (XE Philip Russell-Vick) The Survey Collector questions for RVS111, 122, 128 and MVS443 (VATT/LAN/20) show consistency between these areas. PCC's response is to accept the large scale of Llanbadarn Fynydd site is accommodating of development, but the vast scale of MVS443 more so, which again does little to argue against Llanbadarn Fynydd, or to establish that the East of the valley is the more precious landscape resource (XinC Ian Gates).
- 3.33 Whilst accepting that each site has to be looked at on its own merits regarding its capacity to accommodate development (XE Philip Russell-Vick) PCC referred to so-called "golden rules" of mid-Wales wind farm development. One of which was contended to be location of development on the highest ground possible, albeit not the sensitive high ground of RDNRVS110 and 111 to the north of the SSA (XE Philip Russell-Vick). High ground increases turbine visibility, albeit at greater distances, and so it was said to be important to protect valleys by setting development back from valley edges, (XE Philip Russell-Vick). This we have seen incorporated into the Llanbadarn Fynydd design.
- 3.34 PCC acknowledge that it is heavily influenced by the existence of the P&L windfarm in the West to draw a distinction between the two sides (XE Philip Russell-Vick). This should do

Contrasts made between east and west of SSA C

PCC "Golden Rule" – develop on high ground

nothing to persuade you that Llanbadarn Fynydd is in the wrong place or cause you to doubt the ability of Llanbadarn Fynydd to accommodate development.

3.35 The suggestion that the lack of a major break in the landscape to the East of Llanbadarn Fynydd means landscape impacts are spread over a greater area than for Llandinam (XE Philip Russell-Vick) must be tempered by PCC's acceptance that Llanbadarn Fynydd is visually well contained and significant landscape impacts eastward stop at the Teme valley.

3.36 A further "golden rule" was argued to be the maintenance of "generous" separation distances between developments (Philip Russell-Vick proof para 3.17). The apparent conflict of this "golden rule" with the concentration approach of TAN 8 search areas was acknowledged by PCC (XE Philip Russell-Vick) whilst still maintaining the SSA approach could achieve "generous" separation distances. PCC resisted the suggestion that the most that could be hoped for was "adequate" separation distances, such as the 4.6km across the Ithon valley which prevents a windfarm landscape being created (XE Philip Russell-Vick). "Adequate" is an appropriate standard within the SSA and is only separated by semantics from "generous" – unless generous is submitted by PCC to mean the actual separations between Carno, P&L and Bryn Titli (Philip Russell-Vick para 3.17) which could never be accommodated in an SSA. Welch confirmed that smaller shallower valleys like the Ithon played a greater role in diminishing visibility than wider deeper valleys with turbines in an elevated position at one side (XinC James Welch).

PCC "Golden Rule" – generous separation distances

3.37 PCC suggested that the lack of separation between the three SSA C schemes was evidenced by the overlap of areas where there would be significant impacts from each individual development (XE Philip Russell-Vick). It is not clear why this should be a criticism of any of the developments (ReEx Ian Gates). The schemes would not read as one, and the windfarm landscape does not flow across the valley (XE Philip Russell-Vick) which evidences separation between schemes. If overlap of impacts was a major consideration it would have featured as a negative finding in the cumulative impact assessment, but doesn't.

3.38 SNH guidance (CD/VATT/LAN/02 page 44 para 19) that the effect of undeveloped ground between turbines depends on landform is relevant to the Ithon Valley, with PCC accepting the topography's contribution to the separation between schemes (XE Philip Russell-Vick). It was accepted that setting turbines back behind the break of a ridgeline or plateau reduces their impact and makes them harder to scale (XE Philip Russell-Vick) and that is what you will see looking across the Ithon valley to Llanbadarn Fynydd from the East and what Gates described as the design ethos of the scheme (XinC Ian Gates).

3.39 Extent of Landscape Impacts

3.40 High magnitudes of landscape change are confined to locations within 1.5km but even this separation distance, in the Gwenlas and Ithon Valleys, gives a magnitude of landscape change that is medium or low, because of the difference in elevation between the valley bottoms and the incised plateau (Ian Gates XinC and Proof, paragraph 5.2.3 and Appendix LVIA 7) and high levels of screening from vegetation. PCC agree the low level of the Ithon Valley impacts (XE Philip Russell-Vick). PCC use the phrase "domestic scale" here, but do not define this. The suggestion that domestic scale conflicts with turbines was weakened when PCC accepted that its reference to domestic for VP5 (SEI Fig 3.54) was driven by visible development, the more developed, the more domestic. On that basis, the Gwenlas valley is accepted to be only lightly settled (in comparison with the Ithon Valley) thus not domestic in scale and benefitting from significant screening from vegetation (XE Philip Russell-Vick).

Landscape impacts assessed by distance

3.41 One area of difference in extent of landscape impact remains, where Gates maintains that to the South East, the "landscape with windfarms" subtype (where turbines might be prominent but not dominant) would not exist past Fron Top (c2km), (XinC Ian Gates) while PCC say that it would extend to VP 11 Moelfre Hill (c4km). (XE Philip Russell-Vick). This is a matter for judgement following the site views, but fixing the threshold of change from "windfarm landscape" to "landscape with windfarm" will never be exact and does not appear to be abnormally greater here than might be expected of any windfarm.

3.42 Medium magnitudes of landscape change have been assessed for VSAs or parts of large or sinuous VSAs within 4-5km with the exception of the north, where effects are minimised or removed altogether. (Ian Gates Proof, paragraph 5.2.4). PCC concede that screening means the majority of the high value MNTGMVS254 facing north over the Severn Valley and the Ithon valley slopes of RDNRVS136 are unaffected by the development (XE Philip Russell-Vick). The northern views were described as spectacular, but do not carry around to the East (InspQ Colin Goodrum).

Landscape impacts by VSAs affected

3.43 For other than the three host VSAs, turbines would not significantly adversely affect their key characteristics. (Ian Gates Proof, paragraph 5.2.5) Numbers of VSAs affected is not a reliable guide to level of impact. It is not a simple headcount (XE Philip Russell-Vick). PCC argue the greater the number of VSAs affected, the more varied and complex the landscape, but balanced against this is the site assessment and concentration of impacts into RDNRVS122 and parts of the two adjacent VSAs most closely following its characteristics.

3.44 The Host VSAs : RDNRVS111 – Upland Moor, Kerry Hills

3.45 The part of RDNRVS111 within and closest to the site has been subject to agricultural improvement similar to RDNRVS122. Its high landscape sensitivity should be reduced in its south-western part to accord with the medium landscape sensitivity ascribed to RDNRVS122, suitable for a limited number of turbines. (Ian Gates XInC and Proof, paragraph 5.2.8 and 9). The Landmap survey question VS39 that windfarm development is a major threat is because it is the only likely development in this area (XinC Ian Gates) and applies to the extensive area, not just the transitional part to area 122. The same comment is made regarding area 128 and is similar comments to the Collector survey question for area MNT443 around P&L, also in the West of the SSA C, where the recommendation is "*limit further development*".

RV5111
transition area
only affected

3.46 The 2008 Arup Local Refinement Study (CD/COM/010 & 010A) incorporated the western part of RDNRVS111 in Zone C2b: Banc Gorddwr assessed as possessing medium-low landscape character sensitivity as enclosed upland grassland. (Ian Gates Proof, paragraph 5.2.10)

3.47 PCC's rejection of this transition area argument recognises some landscape changes within RDNRVS111, indeed, they accept the five turbines are more surrounded by fields than moorland and this part of RDNRVS111 is properly described as a mix of fields and moorland (XE Philip Russell-Vick) but seeks to persuade you on the basis that Landmap has the boundary "broadly right" (XinC Philip Russell-Vick). This does not tackle the point that there are blurred edges between such areas, which the application has sought to use sensitively. The substance of PCC's opposition is not improved by comments like "*you shouldn't salami-slice*" these areas (XE Philip Russell-Vick). Even if you look at areas as a whole, you come to a boundary where influence from neighbouring areas will occur. It was accepted by us that if you ignored the transition area and treated the area as uniform value there would be turbines in an area of high sensitivity (the same goes for the two turbines in area 128) (XE Ian Gates) but that requires the boundaries to be applied excessively rigidly.

3.48 PCC's opposition is weakened by its acceptance that there can be flexibility in the interpretation of landscape area boundaries (XE Philip Russell-Vick). We are happy to accept the gloss PCC add that you should define by geographical features and landforms (XE Philip Russell-Vick), as it is the reason Gates pointed out why the boundaries of the VSAs around the site should be interpreted as he suggests.

3.49 This is in an area to which PCC ascribes "*a spiritual and historic layer that adds value*" (Philip Russell-Vick proof para 7.16). It was not meant as any formal reference to heritage assets or their settings (XE Philip Russell-Vick) but rather an overall feeling people have outdoors in a remote tranquil landscape. You will be judging the extent of remoteness

and tranquillity (we say not much) but it was conceded these responses are not unique to this landscape (XE Philip Russell-Vick). Gates did not see any noticeable time depth, especially given the 3.3km to the Kerry Ridgeway (XE Ian Gates).

3.50 The Host VSAA's : RDNRVS122 – Improved Upland, South of Kerry Hills

3.51 Land-cover consists of improved grassland in large, angular fields bound by post and wire fences and trimmed coniferous hedgerows, LANDMAP describing the effect as '*unnatural*' and '*visually unattractive*' and the intensive pastoral farming as intensive and '*inappropriate*'. (Ian Gates Proof, paragraph 5.2.14 and Viewpoints 3 and 4 in Figures 3.11 and 3.12)

3.52 LANDMAP commentary for RDNRVS122 is of '*low*' scenic quality and '*fairly typical hill country*.' with only 'moderate to low' value, one of the lowest LANDMAP evaluations. (Ian Gates Proof, paragraph 5.2.15)

3.53 Not surprisingly Arup's Local Refinement Study (CD/COM/010 & 010A) concluded this area, its Zones 4 and 5, possess only low-medium landscape character sensitivity. (Ian Gates Proof, paragraph 5.2.17)

3.54 Turbines would represent large scale, man-made elements in a landscape that has already experienced landscape change through twentieth century agricultural intensification. (Ian Gates Proof, paragraph 5.2.16). On whether a managed landscape was more suitable to accommodate turbines, it was conceded these attributes would make an area more appropriate but that you couldn't generalise or apply this in Mid-Wales (XE Philip Russell-Vick). Given its argument about Llanbadarn Fynydd de-sensitising the surrounding landscape, it is surprising PCC demonstrated such discomfort in this concession.

3.55 The Host VSAA's : RDNRVS128 – Upland Valleys South of Kerry Hills

3.56 This extensive VSAA extends into the site along Cwm Nant Ddu and the western side of the Gwenlas Valley but turbines 11 and 12 on the boundary of RDNRVS128 are more accurately considered to be located in the less sensitive RDNRVS122. PCC Development Control Support Report December 2008 confirmed these turbines are '*...located back from the break of slope*.' (Ian Gates Proof, paragraph 5.2.21 and 22)

3.57 Presence of turbine hubs and blade tips in Cwm Nant Ddu would give a high magnitude of landscape change although they would not be readily appreciated and would not reduce landscape elements within Cwm Nant Ddu or RDNRVS128. (Ian Gates Proof, paragraph 5.2.23) Limited visibility into and out of the valley is accepted by PCC, who nevertheless resist the suggestion that the most important views are those from within the valley, when you are in the actual landscape unit (XE Philip Russell-Vick).

- 3.58 This explains why PCC relied heavily on the setting of the Cwm Nant Ddu being affected, but conceded this was not something referred to in any published study (XE Philip Russell-Vick). PCC referred to the Llanbadarn Fynydd February 2013 SEI (para 3.2.7, Page 14) about the extent of the setting of the valley including the table top plateaux (Re-Ex Philip Russell-Vick) but this was not put to Mr Gates. On a fair reading the reference being made was to the Ithon valley, not Cwm Nant Ddu.
- 3.59 RDNRVS128 in the Gwenlas Valley has lower landscape change and is less sensitive to change than Cwm Nant Ddu as it shares more characteristics with the less sensitive RDNRVS122. (Ian Gates Proof, paragraph 5.2.24 and 25)
- 3.60 In response PCC ask you to consider montages where you can see RDNRVS122 and 128 together, say from Fron Top (XinC Philip Russell-Vick), and as turbines are factually in RDNRVS128, the debate about transition areas is, they say, "*not one worth having*". Gates stressed that from Fron Top the less sensitive Gwenlas valley was in the foreground and the location of the turbines on the table top plateau was evident. When in the Cwm Nant Ddu, the sense of scale of the valley itself and its remaining tranquillity would not be lost (XE Ian Gates). PCC stress the initial "outstanding" evaluation of RDNRVS128 (subsequently reduced after quality assurance testing to "high" – Fig 3.20 Vol 4 Feb 2013 SEI) but even when in place applied to the whole VSAA. "Transition areas" answers the question why the site has emerged as suitable for development. Transition areas are definitely a debate worth having and explain why turbines are appropriately located at the edge of RDNRVS128.

3.61 Cumulative impacts of windfarms : by VSAA's

- 3.62 Significant cumulative impacts of Llaithddu and/or Llandinam in tandem with Llanbadarn Fynydd that are greater than the impacts of Llanbadarn Fynydd alone occur only in RDNRVS115 and RDNRVS123 but the addition of Llanbadarn Fynydd is not the difference between significant or no significant effects. (Ian Gates Proof, paragraph 8.2.7 and 8)
- 3.63 For VSAA's RDNRVS110, RDNRVS130 and RDNRVS136 the introduction of Llanbadarn Fynydd will increase magnitude of landscape effects around individual viewpoints but not significantly across the whole of those areas. (Ian Gates Proof, paragraph 8.2.14)
- 3.64 Landscape impacts where all proposed wind farms in SSA C are operational are the same with or without Llanbadarn Fynydd save that its introduction makes the difference between them being significant or not significant in the VSAA sub areas of RDNRVS122 (Two Western Sub-Areas) and RDNRVS128 (Cwm Nant-Ddu Sub-Area) (Ian Gates Proof, paragraph 8.3.5/6).
- 3.65 PCC criticisms of the Applicant's cumulative assessments advanced at the inquiry were not enthusiastically endorsed by its witness, who conceded there was no lack of

L/F not the cause of significant cumulative impacts

PCC criticism of Applicant's assessment

information before the Inspector. PCC's query became one of which parts of the assessments were incremental and which "in combination". (XE Philip Russell-Vick). Gates maintained he had undertaken an in combination assessment, identifying where any additional development would result in a change to significance to any receptor, similar to each scheme assessment in Area C (XE Ian Gates).

- 3.66 Most importantly PCC accepted that its assessments concluded that the impacts of Llanbadarn Fynydd in addition to the other two schemes amounted to no more than the impacts of Llanbadarn Fynydd alone (XE Philip Russell-Vick). This confirms there really is nothing to fear from the three schemes together having greater impacts than if considered alone.
- 3.67 PCC also accept that conclusion undermines the argument that development should be kept to the West of the Ithon Valley (XE Philip Russell-Vick) which leaves the Council only with its "de-sensitisation" argument.
- 3.68 This argument, as a reason for refusal, is raised by PCC in respect of the AONB. Separately, it is advanced in terms of the eastern part of the SSA, on the basis that if Llanbadarn Fynydd is consented it will make it harder to refuse other applications in that area. Interestingly, the Landmap collector questions run contrary to this. They accord overall high evaluation of MVS443 not despite the P&L turbines, but partly because of them, adding positively to the sense of place and tranquillity. Whilst PCC describe these findings as "surprising" they agree that turbines do not automatically reduce landscape value (XE Philip Russell-Vick).
- 3.69 In essence, any argument of de-sensitisation is vulnerable to the well-established principle that any application must be found to be acceptable on its own merits, given the baseline against which it is measured. This is accepted by PCC (XE Philip Russell-Vick) and is not weakened by accepting that an existing windfarm, like P&L, is relevant to assessing the existing baseline (XE Ian Gates). Approving Llanbadarn Fynydd was agreed not to be handing *carte blanche* to the ensuing TCPA applications (XE Philip Russell-Vick). If as PCC contends, subsequent developers will find their developments judged more acceptable (XE Philip Russell-Vick) that must be a facet of Llanbadarn Fynydd simply having been judged acceptable by itself.
- 3.70 PCC accept that future controls over development provide adequate protection of landscape and amenity but comment that post Llanbadarn Fynydd, decision makers would not be dealing with a "virgin landscape" (XE Philip Russell-Vick). Reiterating the point I made during the inquiry, PCC confirms it has no "in principle" opposition to development in the East of the SSA (XE Philip Russell-Vick).

PCC's "de-sensitisation" argument

3.71 Put simply, the Council's de-sensitisation argument cannot stand alongside its willingness to see development in this area.

3.72 Impact of development on other LANDMAP Aspect Areas

3.73 Historic Landscape Aspect Area RDNRHL613 closely follows the boundaries of the Cwm Nant Ddu (SEI Fig 3.22) separating it from the site and distinguishing the valley from the site. PCC were uncomfortable with this evidence, conceding that there was a lower sensitivity in the Northern Gwenlas Valley but unwilling to accept the separation between the Cwm Nant Ddu and the site, which contradicts the importance they placed on this HLA.

Cwm Nant
Ddu as a
Historic Aspect
Area

3.74 Llanbadarn Fynydd does not stand out in terms of proximity to HLAs, with Llandinam accepted as being broadly comparable, being within 1km of MHL789 and MHL124. (XE Philip Russell-Vick)

3.75 HLA RDNRHL613, with high sensitivity, would experience significant cumulative landscape effects from all the s36s (Ian Gates Proof, paragraph 8.2.17) but even with all the SSA C wind farms operational Llanbadarn Fynydd would not incrementally 'tip the balance' changing significance for any non-VSAA aspect area. (Ian Gates Proof, paragraph 8.3.10)

3.76 Landscape impacts by Powys Landscape Character Areas (LCAs)

3.77 The analysis of Powys LCAs has been undertaken (Ian Gates Proof, paragraph 5.4.1 to 5.4.11) but as they are derived from Landmap data they do not add to the VSAA assessments, as accepted by PCC (XE Philip Russell-Vick).

3.78 Thus care is needed not to aggregate LANDMAP aspect areas and Powys LCA impacts as this would result in double counting of landscape effects. (Ian Gates Proof, paragraph 5.4.2)

Avoiding
double
counting of
impacts

3.79 Cumulative impacts by Powys LCAs

3.80 Cumulative impacts on LCA R12 would not be significant, and the already significant impacts on LCA R18 will not be increased by Llanbadarn Fynydd. (Ian Gates Proof, paragraph 8.2.22)

3.81 LCA M29, with Llanbadarn Fynydd, Llaithddu and Llandinam operational would result in a moderate/substantial level of cumulative landscape effect that would be significant, due to proximity. (Ian Gates Proof, paragraph 8.2.24)

3.82 With all SSA C wind farms operational significant cumulative landscape effects will occur in LCA M29; LCA R18 and LCA M32 but this remains so with or without Llanbadarn Fynydd. (Ian Gates Proof, paragraph 8.3.11)

3.83 Llanbadarn Fynydd would increase significant cumulative landscape effects in a further five VSAs and one HLAA, all geographically compact areas. (Ian Gates Proof, paragraph 8.4.3)

3.84 The Shropshire Hills AONB

3.85 Minimum separation distance is 5.5km from the AONB boundary to Llanbadarn Fynydd Turbine 17, but to areas of visibility in the AONB, is 6.5km (XE Ian Gates). No objections have been raised by the AONB Partnership, CCW (NRW) or in Arup Reports for PCC. (VATT/LAN/016 and Ian Gates Proof, paragraph 4.1.4)

Separation
distance to the
AONB

3.86 The Shropshire Hills AONB Draft Management Plan (VATT/LAN/012) "Statement of significance and special qualities" contain only two that mention outward views that could be impacted. None of the seven 'key issues' relate to wind farm development or the scenic or environmental quality key characteristic. (Ian Gates XinC and Proof, paragraph 4.2.3). Whilst tranquillity is a feature of the AONB, it is not characteristic of Llanbadarn Fynydd, because of intensive agriculture and local roads (XinC Ian Gates).

3.87 The AONB Management Plan Policy that 'Land within 5km of the AONB is unsuitable for any large scale wind farm development and should be excluded from any Search Areas' is respected. (Ian Gates Proof, paragraph 4.2.5)

3.88 In any event, there are examples in England and Wales where wind farms using similar height turbines have been permitted within 5km of an AONB. (Ian Gates Proof, paragraph 4.4.2).

3.89 Whilst the hub height ZTV extends over 5.1% of the AONB the actual scale and prominence of the turbines at Llanbadarn Fynydd can be seen at 7.8km from Viewpoint 16 on Black Mountain near Anchor in the Clun Forest. At these separation distances the turbines would not be conspicuous or prominent landscape features in outward views. (Ian Gates Proof, paragraph 4.3.2/3 and Appendix LVIA 4)

3.90 In respect of PCC's assertion that the site is within a 'landscape unit' that extends eastwards to encompass the Shropshire Hills AONB, the five LANDMAP aspect layers show this purported 'landscape unit' is not readily identifiable. PCC maintain that topography shows continuity but accept (XE Philip Russell-Vick) there are several intervening LCAs of moderate evaluation between the site and the AONB. This implies that this part of eastern Powys does not share the same outstanding landscape value as the adjoining AONB. (Ian Gates Proof, paragraph 4.3.8 and 9). PCC accepts that the features identified as similar extend from the Clun Forest all the way to the Cambrian Mountains (XE Philip Russell-Vick).

Alleged
landscape
similarity to
the AONB

- 3.91 No mention of landscape similarity or its importance is made by the AONB partnership in the Management Plan, existing or draft (XE Philip Russell-Vick). Since the point made relates to impact on the AONB, it undermines PCC's "single landscape unit" point.
- 3.92 PCC's argument that conifer blocks and post and wire fences in the AONB are similarities between the two (XinC Philip Russell-Vick) does nothing to elevate the importance of the site. PCC accepts that the AONB has less valuable, more bland areas, but does not suggest that RDNRVS122 is in fact worthy of AONB protection (XE Philip Russell-Vick), despite the management plan stating there are adjoining areas of considerable landscape quality (ReEx Philip Russell-Vick). This might apply to border areas, but not RVS122 (XinC Ian Gates).
- 3.93 All of the above has to be seen in light of PCC's acceptance that the impacts on the AONB from Llanbadarn Fynydd alone will not be significant (XE Philip Russell-Vick). AONB impacts of L/F alone judged acceptable
- 3.94 AONB Cumulative impacts**
- 3.95 PCC describe its argument as being "*a simple matter of common sense*" (XinC Philip Russell-Vick) that to the West of the SSA its lack of opposition to Llandinam and Llaithddu is borne of the existence of the P&L windfarm, hence that desensitisation of the landscape could occur, if Llanbadarn Fynydd is consented. PCC further reliance on desensitisation
- 3.96 However, the addition of Llaithddu and/or Llandinam would not cause significant cumulative landscape effects in the AONB with key characteristics, including scenic and environmental quality and tranquillity, remaining in place, (Ian Gates Proof, paragraph 8.2.4), agreed by PCC and that impacts on the AONB of all s36 schemes would not be significant (XinC and XE Philip Russell-Vick).
- 3.97 Bryngydfa and Garreg Llwyd Wind Farms would play the largest incremental role of the SSA C wind farms in generating the cumulative magnitude of landscape change experienced by the AONB. (Ian Gates Proof, paragraph 8.3.2)
- 3.98 Even if you accept that impacts on the AONB with all SSA C schemes would be unacceptable, as contended by PCC (XinC Philip Russell-Vick) but not by Gates (XinC Ian Gates) Llanbadarn Fynydd's turbines would never increase the magnitude of cumulative landscape change due to the size of the AONB and the low, non-significant level of cumulative landscape effects it would cause. (Ian Gates Proof, paragraph 8.3.4)
- 3.99 PCC accepts that additional TCPA applications are not for determination at this inquiry and that should Llanbadarn Fynydd be consented, the cumulative impacts of all together will be before the decision maker before any consent is granted. It also accepts that if there is a significance threshold that is passed in the determination of those TCPA applications, that will be a material consideration (XE Philip Russell-Vick).

3.100 PCC's desensitisation argument, this time in relation to the AONB, cannot stand against these facts.

3.101 Visual impacts : the nature of likely impacts

3.102 Topographical variations ensure the whole site is never visible from points within it or close by. The northern part has little visibility from the central and southern parts. Views out of Cwm Nant Ddu, the Gwenlas Valley and the upper section of the Teme Valley are limited by the rising valley sides and the nearest section of the Ithon Valley is not visible from the application site due to the 'tabletop effect'. (Ian Gates Proof, paragraph 3.6.1/4)

The effects of topography

3.103 This advantageous topography means that in most directions beyond approximately 3.5km and only ZTV fragments out to 6km. (Ian Gates Proof, paragraph 6.3.9)

3.104 Dispute over the extent of significant visual impacts is limited principally to VP6, a gateway on the A483, and VP7, a minor road, in both cases due to receptor sensitivity. PCC prefer to list all road users as having high sensitivity (XE Philip Russell-Vick) however people on daily business do not have the same sensitivity as those specifically on a footpath for recreation. PCC agree there will be no significant visual impacts over 4.4km (XinC Ian Gates and VATT/LAN/18).

Receptor sensitivity to visual change

3.105 PCC sought to highlight locations where turbines would be seen as "dominant" but conceded that visual dominance equates with high magnitude of visual change. Crucially it was accepted that none of the locations connoted unacceptability of development, rather they were inevitable, being close to a windfarm (XE Philip Russell-Vick, ReEx Ian Gates) which took the force from PCC's suggestion that the "threshold of unacceptability" occurred where turbines were dominant (XE Ian Gates).

Acceptability of impact and magnitude of visual change

3.106 PCC concedes that Llanbadarn Fynydd is not materially more visible over a wider area than the other two schemes in SSA C and compares favourably in that it does not have significant visual impacts on settlements or unacceptable effects on residential properties (XE Philip Russell-Vick).

3.107 As to turbine appearance, we heard that there is acceptance of their place in the countryside as they become a more familiar sight (InspQ Ian Gates).

3.108 The Arup Development Control Support Report (VATT/LAN/015) offered three visual criteria against which to review acceptability, those being to avoid :

- (a) unacceptable visual effects upon residential properties,
- (b) unacceptable visual effects upon recreational visual receptors and
- (c) 'over dominant' effects on the skyline from 'key or sensitive viewpoints'

3.109 All of these have been shown to be satisfied. (Ian Gates Proof, paragraph 3.7.13)

3.110 Visual impacts to Settlements

3.111 Of 19 settlements assessed, 16 would sustain no effects reflecting that many are located along valley bottoms such as Beguildy, Felindre and Llanbister. (Ian Gates Proof, paragraph 6.2.1)

3.112 Llanbadarn Fynydd village properties (those with a clear northern view) would sustain no more than a low magnitude of visual change from the partial presence of some turbines, albeit within those views, Llanbadarn Fynydd will make the greatest incremental contribution to cumulative visual effects. (Ian Gates Proof, paragraph 6.2.3 and 9.4.7)

3.113 Residential Properties

3.114 Assessment of properties up to 2.5km from any turbine shows that residents in 13 properties would sustain medium or high magnitudes of visual change and significant visual effects, representing only 20% of isolated properties within that distance, indicative of acceptability in visual terms. (Ian Gates Proof, paragraph 6.3.5 and 6.3.10)

3.115 Higher levels of visual change for landowners with a financial interest (Springfield; Hafod-fach; Garn; Esgairuchaf) can be afforded less emphasis. (Ian Gates Proof, paragraph 6.3.6)

3.116 Significant visual effects tend to reside in properties where the nearby topography prevents the full tabletop effect, such as at Lower Camnant and on the western side of the Ithon Valley, principally Esgairdraenllwyn; Glen Ithon Lodge; School House; and Banc-Newydd as well as at a single property: Esgairwyndwn, on Fron Top. (Ian Gates Proof, paragraph 6.3.8)

3.117 When addressing residential visual amenity we consider whether turbines would result in an 'overbearing' effect upon residents and/or whether the turbines' presence would result in 'unsatisfactory living conditions' at a property. (Ian Gates Proof, paragraph 7.1.1). PCC accept that no such conditions would arise, having reviewed the evidence (XE Philip Russell-Vick).

Agreement on no overbearing impacts

3.118 Relevant factors are visible array width, separation distances, internal layout and external orientation of properties and the effects of topography and screening (Ian Gates Proof, paragraph 7.1.2) At Butterwell, for example, at 965m separation at an array width of less than 120°, there is no prospect of impacts being overbearing, certainly by reference to previous decisions (XE Ian Gates). Where distances are less, say at 700m for Blaen Nant Ddu the wireframes show significant screening enhanced by buildings and planting plus principle views being away from turbines.

3.119 Of those 13 properties with significant visual effects Esgairdraenllwyn resulted in particular discussion, as to why at 880m to the nearest turbine at an array width of 85° and 17 turbines visible the effects were still judged moderate? The considered answer was given that the valley gives a clear sense of separation, as do turbines being located some way behind the break of the slope of the top of the eastern side of the Ithon Valley giving a partial tabletop effect meaning their full height cannot be scaled against landscape features and at an array width of 85° turbines are at increasing distances that give no sense of the property being surrounded (InspQ Ian Gates).

Esgair-
draenllwyn

3.120 Even though each decision must be made on its own facts Earl's Hall, Tendring in Essex (VATT/LAN/017), Kelmars (VAT/INS/001), Burnthouse Farm in Cambridgeshire (VATT/INS/003) and Cleek Hall, Selby in Yorkshire (VATT/INS/005) all contained closer proximity to turbines. (Ian Gates Proof, paragraph 7.2.11/12). Greater information elsewhere in evidence on distance vs residential amenity support the distances referred to above. (Goodrum Appx 5 and ReEx James Welch)

3.121 Cumulative visual impacts to residential properties

3.122 Llanbadarn Fynydd would generate significant visual effects at 16 of the 53 cumulative viewpoints over a maximum separation distance of 4.4 km with Llaithddu and Llandinam alone generating significant visual effects at eight. Selection of cumulative viewpoints had a natural bias towards viewpoints where Llanbadarn Fynydd created impacts, as VPs where it had no effect were excluded. (Ian Gates Proof, paragraph 9.1.4 and Feb 2013 SEI Vol1 para 3.6.4).

3.123 With all seven SSA C wind farms operating significant cumulative visual effects would occur at two additional viewpoints, 2: Minor road close to Rhos and 11: Minor road close to Meolfre City. (Ian Gates Proof, paragraph 9.4.3)

Extent of
additional
cumulative
visual impacts

3.124 For properties within 2.5 km, Llanbadarn Fynydd would make the largest incremental contribution to cumulative visual effects, but in the Gwenlas Valley the visual role of turbines at Garreg Llwyd becomes increasing important and the incremental roles of them and those at Llanbadarn Fynydd would become approximately equal. Further north along the Valley turbines at Neuadd Goch Bank would assume a greater incremental visual role. (Ian Gates Proof, paragraph 9.4.6-10)

3.125 At the top of the Gwenlas Valley and for residential visual receptors in upper Teme valley properties, turbines at Neuadd Goch Bank would assume a greater incremental visual role than Llanbadarn Fynydd. (Ian Gates Proof, paragraph 9.4.11)

3.126 Minimum separation distances of 4.6 km between Llanbadarn Fynydd and Llaithddu or Llandinam make it extremely unlikely that in combination they could be considered to be 'overbearing'. (Ian Gates Proof, paragraph 9.3.2)

No overbearing
cumulative
visual impacts
to properties

3.127 With all SSA C wind farms operating residents in nine properties would experience an increase in cumulative residential visual amenity effects. Eight would arise because of Bryngydfa, Garreg Llwyd and/or Neuadd Goch Bank. The increase at Upper Camnant (property No.7) would remain due to the long turbine array at Llandinam Repowering and Llaithddu. (Ian Gates Proof, paragraph 9.5.1)

3.128 At four of the eight properties (Butterwell; Lower Foel; Lower Camnant; and the new house at Esgairuchaf) the increase in effect upon residential visual amenity would be from moderate to moderate/substantial. At the other properties (29) Dolfryn; 34) Lower Fiddler's Green; 35) Fiddler's Green; and 37) New house at Pen-y-Bank) the increase would be slight/moderate to moderate. The incremental contribution made by Llanbadarn Fynydd to effects upon residents' cumulative residential visual amenity would decrease, behind the effects of Garreg Llwyd and Bryngydfa. (Ian Gates Proof, paragraph 9.5.2)

3.129 National Trails

3.130 Three sections of Glyndwr's Way have views of Llanbadarn Fynydd. Section 2 Llangunllo to Felindre would sustain periodic effects not exceeding a low magnitude of visual change that would not be significant. (Ian Gates Proof, paragraph 6.4.3) Glyndwr's Way

3.131 The most open and elevated views in Section 3 Felindre to Llanbadarn Fynydd are available along Fron Top, giving recreational receptors high magnitudes of visual change and significant visual effects. (Ian Gates Proof, paragraph 6.4.5) PCC accept that as you walk westwards you get a consistent view, bar in the Gwenlas valley (XinC Ian Gates) which offers some advantage over views of turbines "coming and going". The 14-15km total length of exposure with closest points within a windfarm landscape is a significant adverse impact (XinC and XE Philip Russell-Vick) and on a precautionary basis is put forward as a worst case effect (InspQ Ian Gates).

3.132 Section 4 Llanbadarn Fynydd to Abbey Cwmhir puts turbines 'behind' walkers in most guidebooks. For the final third, limited views mean low magnitudes of visual change that would be not significant. (Ian Gates Proof, paragraph 6.4.6/8). On the West side of the Ithon Valley PCC accept that the impacts of the three schemes begin to balance equally, remembering that PCC sees no significant impacts on the route from Llandinam and Llaithddu (XE Philip Russell-Vick). This tells us that the only difference in impact on the route is that you walk nearer to Llanbadarn Fynydd than the other two sites.

3.133 PCC seek to distinguish Llanbadarn Fynydd as the scheme with the greatest impact on this route, based on lengths of view within 5km, accepting the baseline impacts of existing P&L turbines, and having no firm figure for the visibility of either Llandinam or Llaithddu (XE and ReEx Ian Gates). However, when the visibility of windfarms from Glyndwr's

Way at greater than 5km is considered, Llanbadarn Fynydd ceases to be the object of this individual criticism (Figure 5 Gates LVIA Rebuttal Session 1).

3.134 Walking the full length takes between nine and twelve days, with PCC accepting that the impacts are only to one section (XE Philip Russell-Vick). The route passes close to several operational wind farms with user survey material not listing them as detractors (XinC Ian Gates and VATT/LAN/021). The presence of Llanbadarn Fynydd for approximately two days' walking would be highly unlikely to be significant upon the Way as a whole. Long distance walkers (or cyclists and riders) may derive some benefit from turbines as fixed landmarks aiding direction finding. (Ian Gates Proof, paragraph 6.4.8)

3.135 Kerry Ridgeway is 24km long with predominant views northwards over the Severn Valley of which the western-most 1.5km would have a medium magnitude of visual change, the remainder being low, or no impacts. (Ian Gates Proof, paragraph 6.4.9 to .12)

Kerry
Ridgeway

3.136 Cumulative impacts to National and Regional Trails

3.137 On Section 2 of Glyndwr's Way Llanbadarn Fynydd and Llandinam Repowering would generate approximately equal incremental contributions to cumulative visual effects for recreational visual receptors. (Ian Gates Proof, paragraph 9.2.13)

3.138 Along Section 3 (Felindre to Llanbadarn Fynydd) the turbines at Llanbadarn Fynydd will consistently make the largest incremental contribution to cumulative visual effects. (Ian Gates Proof, paragraph 9.2.14)

3.139 On Section 4 the incremental roles played by the three wind farms would become similar as the route of climbs out of the Ithon Valley. (Ian Gates Proof, paragraph 9.2.15)

3.140 Llanbadarn Fynydd's greatest incremental contribution would be for approximately 4km from the summit of Fron Top across the Ithon Valley until the slopes of Moel Dod. It would make an equal contribution with Garreg Llwyd and Bryngydfa for the open length of the Way into and out of the Gwenlas Valley over 1.5km and at Location Viewpoints 20-22 south of Moel Dod. (Ian Gates Proof, paragraph 9.4.17)

Contribution of
other SSA C
east schemes

3.141 On Kerry Ridgeway Garreg Llwyd and Bryngydfa would make a greater incremental contribution to cumulative visual effects although not significant. (Ian Gates Proof, paragraph 9.4.20)

3.142 From east of Two Tumps the greatest incremental role would be at Neuadd Goch Bank, Garreg Llwyd and Bryngydfa making a similar incremental contribution to Llanbadarn Fynydd. (Ian Gates Proof, paragraph 9.4.21)

3.143 Visual Receptors using Local PRow and Road Network

3.144 16 PRowS and one network would sustain significant visual effects, but a high density of local PRowS and low levels of usage and poor connectivity mean the significant effects do not warrant refusal, with the PCC Cabinet Report of March 2012 describing the network as '*disjointed*' and '*not heavily used*'. (Ian Gates Proof, paragraph 3.6.10 and 6.5.3)

3.145 Medium magnitudes of visual change occur on relatively short-lived sections of the A483 and the B4355. PCC's reference to there being no build up to the view when approaching from the North (XinC Philip Russell-Vick) relates to one of these views but it is short lived even if experienced by residents on daily business. On the two minor roads that cross the site the effect of minor junction changes will be to a low-medium landscape sensitivity area. (Ian Gates Proof, paragraph 6.6.1 to .4)

3.146 Some concern was expressed at the level of road users assumed for the A483, Gates indicating it was hundreds, but this seems correct in light of the Tucker Appendices 2015 baseline figure of 2145 movements in a 12 hour period. In any event, the GLVIA guidance (page 114 para 6.33) high sensitivity arises only with evidence of use being for the purpose of enjoying the view, which does not apply to daily users of the A483. Gates maintained his finding of medium magnitude of change (InspQ Ian Gates) an approach supported by Llandinam (XinC James Welch).

3.147 Cumulative visual impacts to Local PRow and Road Network

3.148 The cumulative visual effects sustained by the limited number of recreational visual receptors using local PRowS and roads would be similar to those outlined for longer distance routes. (Ian Gates Proof, paragraph 9.2.17 and .18)

3.149 Llanbadarn Fynydd makes the greatest impact to PRowS and roads crossing the site and on the closest parts of the western side of the Ithon Valley. (Ian Gates Proof, paragraph 9.4.22)

3.150 To the north, on Banc Gorddwr and Cilfaesty Hill Neuadd Goch would make a greater incremental contribution. (Ian Gates Proof, paragraph 9.4.24)

3.151 Landscape and visual impacts of grid

3.152 In respect of grid impacts, the speculative corridors identified are unassessed as there is no detailed route and little merit in considering more than whether a route could be avoided altogether (InspQ Ian Gates Session 4) or avoidance of the move from 132kV to 400kV that the Inspector considered a "step change". (Session 4 Grid Hearing)

Extent of the investigation into grid

3.153 In the round table discussion on grid technical matters including input from Charles Lynch, a key point was whether any necessary grid connections could be achieved by

132kV lines only, given the reference to 132kV in TAN 8 para 2.13 Annex C and the Griffiths letter of July 2013 (Session 4 Grid Hearing).

- 3.154 TAN 8 contemplates possible strategic reinforcement of the mid-Wales network (above 132kV) may be required (Session 4 Grid Hearing) which would provide a stronger and more reliable network for West- and Mid-Wales (InspQ Philip Russell-Vick Session 4). Strategic reinforcement of grid as a TAN 8 objective
- 3.155 There is a policy question for the decision maker to recognise that whilst the 400kV transmission is not necessary for these developments, it would create capacity for further development, making that a factor in whether to stay within TAN 8 capacities or , if not, how far to exceed them (Session 4 Grid Hearing). That was reinforced by evidence that if Nant y Moch (in SSA D) is connected at Cefn Coch it will take the Legacy connection up to 400kV (InspQ Philip Russell-Vick Session 4). In any event, the strategic benefit of a 400kV line may be considered important by WG (InspQ Philip Russell-Vick Session 4).
- 3.156 The Mott McDonald report concluded that if Area B was connected via 132kV lines, they would be unusually long, but voltage regulation issues are manageable. All five windfarms are capable of being connected via 132kV lines (Mott McDonald Table 3.3 Options) and whilst it would be technically preferable to move to the Cefn Coch hub and 400kV line, the 400kV line is not an inevitable consequence (Session 4 Grid Hearing) even if the CC1 132kV line is used to connect Area C to B. (Mott McDonald's option 8a, Session 4 Grid Hearing). No inevitability of a 400kV line
- 3.157 Keeping all transmission to 132kV also means that any substation needed would be half the size required to convert 132kV to 400kV (Session 4 Grid Hearing).
- 3.158 There is no technical distinction between the Area C sites, any of them could be connected east or west (Session 4 Grid Hearing). The theme in PCC's case of Llanbadarn Fynydd being the trigger that causes unacceptable grid impacts cannot stand against its acceptance that a double HDWP can connect all five schemes to Legacy without a 132/400kV substation, and that consenting all schemes does not make CC1 an inevitability (XE Philip Russell-Vick Session 4). PCC accepted that Llanbadarn Fynydd is not a trigger for CC1. CC1 not triggered by L/F
- 3.159 Concern that pylons could be erected in place of double HDWPs was raised in several scenarios, including PCC's preferred scenario, where two schemes in Area C are consented. In that case, the double HDWP link to Legacy could be provided on L7 towers, smaller than a 400kV line, but substantially taller than wooden poles (Session 4 Grid Hearing). Montgomeryshire Against Pylons debated whether smaller pylons would be more acceptable, but said the move to double HDWPs would have avoided opposition (Session 4 Grid Hearing).

3.160 The Alliance raised financial viability in opposition to all the grid options. Viability has not been a material consideration before this inquiry (as opposed to cost benefit considerations) nor has any developer indicated concerns that grid options should be discounted on this basis (Session 4 Grid Hearing).

3.161 The 400kV line

3.162 The 400kV line from Cefn Coch to Legacy was not addressed in evidence by Vattenfall as there are no cumulative impacts of Llanbadarn Fynydd and that route, nor is it infrastructure that is required exclusively for it. No developer thought it necessary to comment on the impact of the 400kV route (XinC Ian Gates Session 4).

3.163 Using the terminology “step change” it was accepted that moving from double HDWP to 400kV line could be seen more as a step change, given the difference in height (XinC Ian Gates Session 4).

3.164 PCC describe it as a combined effect with Llanbadarn Fynydd, accepted by Gates (XE Ian Gates Session 4) but that only means it forms part of a network to which it and other schemes might be connected.

3.165 CC1

3.166 SP Manweb's 'Line Routeing Methodology and Appraisal – Phase 3 Report' (VATT-LVIA-04) has assessed the proposed route between SSA C and the Cefn Coch substation. (Ian Gates Session 4 Proof, paragraph 2.1.7)

3.167 Along the majority of CC1 there would be no potential for any cumulative interaction with Llanbadarn Fynydd. (Ian Gates Session 4 Proof, paragraph 3.4.3)

3.168 As CC1 adheres to the Holford Rules in that it follows the landscape grain, is confined within valleys and contained by topography and woodland planting wherever possible, a detailed landscape and visual character assessment would be likely to conclude that CC1 is acceptable in landscape and visual terms. (Ian Gates Session 4 Proof, paragraph 5.3.11). These conclusions in Mr Goodrum's evidence were tested but did not result in any concessions. (XE Colin Goodrum Session 4) He reaffirmed that on the information available the CC1 route would not cause unacceptable significant impacts.

3.169 The CC1 route crossing the Waun Ddubarthog ridge is unaffected in significance terms by whether Llaithddu South is consented. Mr Goodrum's assessment would stay the same regardless. The close presence of turbines mean the contributory effect of CC1 is lessened, although an overhead line (rather than undergrounded) would cause localised effects, which would be the same for any line crossing a ridge (XE Colin Goodrum Session 4). The visual impact increases as the line crosses the slopes of the Waun Ddubarthog

ridge, and then in the context of nearby turbines, is back dropped against the hill, reducing its impact to a modest intrusion.

3.170 PCC's assessment of CC1 impacts was put to Mr Gates who accepted the factual description of what VSAs lay along the route, but contended (in agreement with Mr Goodrum for Llaithddu) that the characteristics that gave sensitivity to these aspect areas would not be affected by CC1 (XE Ian Gates Session 4).

3.171 PCC's concerns over CC1 are quantifiable by its case that however adverse the impacts might be, they do not warrant undergrounding. The qualification that the concern is over "an accumulation of effects" (XE Philip Russell-Vick Session 4) does not avoid the conclusion that the impacts requiring debate in Session 3 over undergrounding are not in prospect for CC1.

3.172 Additionally, PCC accepts that impacts from CC1 (CC2 and CC3) grid corridors are contained and do not add incrementally to the windfarm impacts (XE Philip Russell-Vick Session 4).

Grid not adding to windfarm impacts

3.173 Describing CC1 as a step change merely describes the difference between the route being built and not, it does not assist with a judgement on significance of impacts. It is not properly a step change if the impacts of the route can be satisfactorily accommodated (XinC Ian Gates Session 4).

3.174 CC1 is not exclusively referable to Llanbadarn Fynydd (XE Ian Gates Session 4). It is one possible combination; another is a dual or single 132kV line eastward to Welshpool, depending on what schemes are consented.

3.175 CC2 (and CC1 in the Ithon Valley)

3.176 The only part of the western grid connection that relates solely to Llanbadarn Fynydd is CC2 and eastern-most part of the CC1 east of the Waun Ddubarthog Ridge. This has been assessed, on the information available, to the connection point of Llaithddu, leaving no unassessed "gap" (ReEx Ian gates Session 4). The landscape west of the A483 is of medium sensitivity due to its scale, blocks and belts of coniferous woodland and existing wind farms. This part of CC1 follows the field pattern, using field boundaries and shelterbelts to screen and backdrop the route. It will be visible in views in the open landscape but broken by existing planting with limited skyline visibility as it crosses the A483. Residential properties are limited, with only five likely to have views of the route, notably two at Blue Lins Farm. (Ian Gates Session 4 Proof, paragraph 2.1.7)

Agreement on acceptability of impacts in the Ithon Valley

3.177 A section of the CC2 OHL could potentially be visible to southbound users of the A483 for c1.5 km, at 60 km/h for some 90 seconds with minimal incremental effect upon the

cumulative visual effects of southbound vehicle users. (Ian Gates Session 4 Proof, paragraph 5.7.6)

3.178 Northbound travellers on the A483 could have filtered views of the CC2 OHL for 60 seconds south of the minor road to Bwlch-y-Sarnau and potential limited sequential cumulative visual effects with the proposed 132kV Llandinam-Welshpool OHL as it crosses above the A483. (Ian Gates Session 4 Proof, paragraph 5.7.7)

3.179 The crossing of the Ithon Valley does not concern PCC, who see no distinction between impacts of CC2 and the Llandinam line as they cross the valley. (XE Philip Russell-Vick Session 4) If they were concerned, there is the option of connecting Llanbadarn Fynydd via the Llandinam line and Llaithddu via CC1 to reduce the crossings (XE Philip Russell-Vick Session 4). PCC accepted the entirety of CC1 and CC2 in the Ithon valley did not cause adverse findings (XE Philip Russell-Vick Session 4).

3.180 Once users of Glyndwr's Way have descended westwards to the western side of the Ithon Valley the only views of Llanbadarn Fynydd are briefly those south of Bwlch-y-Sarnau. (Ian Gates Session 4 Proof, paragraph 3.5.2)

Glyndwr's Way

3.181 For the length of Glyndwr's Way outside SSA C, Llanbadarn Fynydd would make effectively no contribution to cumulative visual effects. (Ian Gates Session 4 Proof, paragraph 3.5.4) and although the Severn Way, would be by CC1 in places, any impacts would only be for very short sections, 200m each side of the line, as established in Session 3 (XE Ian Gates Session 4).

3.182 The Llandinam/Welshpool Line

3.183 The Llandinam/Welshpool 132kV route is relevant to Llanbadarn Fynydd as options include using it or providing a parallel HDWP 132kV line alongside it (Session 4 Grid Hearing).

3.184 160MW could be connected via the Llandinam-Welshpool 132kV OHL, sufficient for two of three proposed SSA C wind farms. (Ian Gates Session 4 Proof, paragraph 2.3.1)

3.185 The bulk of this route, bar that closest to Llanbadarn Fynydd, was not assessed in detail as it was assumed to follow a similar route to the s37 application. Mr Gates doesn't see the additional line as representing any "step change". Any increase in impacts is likely to be contained within the same 1km corridor and similar siting and mitigation options exist with plentiful tree cover (XinC Ian Gates Session 4).

Impacts of a parallel 132kV line

3.186 SPEN indicate that the minimum separation distance between parallel lines is 20m, derived from the height of the HDWPs.

3.187 PCC calling this additional parallel line a "step change" is because it contends any new line would be a step change (XinC Philip Russell-Vick Session 4). On that analysis, the Llandinam/Welshpool line that PCC finds acceptable is also a step change.

3.188 The Northern Spur

3.189 The Llandinam/Welshpool 132kV route relevant to Llanbadarn Fynydd runs from the A483 across Old Neuadd Bank to Cae Betin Wood. Any cumulative effects with the windfarm would be restricted to the 2.5km section between the A483 at Gwynant and B4355 at Black Gate. Only 1.5 km would cross a relatively open landscape, the remainder crossing improved or semi-improved grassland fields with coniferous and deciduous shelterbelts. (Ian Gates Session 4 Proof, paragraph 2.2.2). It is accepted these are adverse effects (XE Ian Gates Session 4) but only over a small area.

3.190 Llanbadarn Fynydd would require a 132kV connection to be teed in between the A483 at Gwynant and the B4355 at Black Gate. It is assumed to have a maximum height of 16m and fall within an indicative triangle. (Ian Gates Session 4 Proof, paragraph 2.3.5 and Figure 5)

3.191 PCC's stance is that the only unacceptable part of the 132kV Llandinam-Welshpool line is between the A483 and B4355. (Ian Gates Session 4 Proof, paragraph 5.1.5).

3.192 The sensitivity of that part is not agreed (XE Ian Gates Session 4) but PCC agrees that the concern is overcome with undergrounding and if the Secretary of State concluded that was justified, that reasoning would apply to Llanbadarn Fynydd's Northern Spur (InspQ Ian Gates Session 4 and XinC Philip Russell-Vick Session 4).

Ability to overcome concerns with undergrounding

3.193 The northern spur would be a prominent landscape element within a few hundred metres of its chosen route, generating landscape effects in an area (MNTGMVS254) already sustaining a high magnitude of landscape change. (Ian Gates Session 4 Proof, paragraph 5.2.10) We can be confident that the spur could avoid the loss of any existing tree shelterbelts (XE Ian gates Session 4).

3.194 PCC's case that undergrounding would not be necessary if Neuadd Goch were consented, but would be if only Llanbadarn Fynydd was (XE Philip Russell-Vick Session 4) suggests Llanbadarn Fynydd has more limited and acceptable effects in the area of the Llandinam line considered most sensitive by PCC.

3.195 The northern spur would have only one residential property: Lower Foel, within 200 m, Cider House, Lower Camnant and Upper Camnant would be between 250 m and 480 m from any potential OHL. (Ian Gates Session 4 Proof, paragraph 5.6.1)

Residential properties

3.196 Lower Foel magnitude of visual change from turbines has been assessed as low recognising that tree cover would provide good screening. (Ian Gates Session 4 Proof, paragraph 5.6.2)

3.197 The potential 132kV northern spur would be viewed below the distant elevated horizons of the western side of the Ithon Valley, Glog and/or Banc Gorddwr making it unlikely that the northern spur would incrementally increase the visual effects to the north sustained by Lower Foel. (Ian Gates Session 4 Proof, paragraph 5.6.3) Impacts from turbines would exceed any grid impacts (XE Ian Gates Session 4).

3.198 The northern spur would not make a difference to the significance of cumulative effects sustained by users of Kerry Ridgeway. (Ian Gates Session 4 Proof, paragraph 5.6.5)

3.199 Users of Glyndwr's Way at 2.0 km from the northern spur (in the upper Gwenlas Valley) and at 4.0 km (to the north of Moel Dod) from the CC1 132kV OHL mean neither would result in a change to significance of visual effects. (Ian Gates Session 4 Proof, paragraph 5.6.7)

Glyndwr's Way

3.200 The northern spur could only make the difference between significant and non-significant cumulative visual effects close to short sections of PRowS. (Ian Gates Session 4 Proof, paragraph 5.6.11)

3.201 Conclusions on landscape and visual impacts of grid

3.202 There is a danger when considering grid for that to dictate what windfarm development goes ahead. PCC accepts that grid should not be prevented if its impacts are considered acceptable, including CC1. (XE Philip Russell-Vick Session 4).

3.203 Moreover, PCC accepted that whatever weight was attached to TAN 8 (such as setting SSA boundaries) acceptable schemes should not be refused because of a ceiling derived from TAN 8 figures (XE Philip Russell-Vick Session 4).

3.204 The balance is overwhelmingly that turbines cause impacts, not 132kV grid connections, due to the disparity in height. Cables have greater ability to be mitigated by tree cover making impacts localised (XinC Ian Gates Session 4). PCC in principle accept this. (XE Philip Russell-Vick Session 4)

3.205 It is agreed there is no danger of harm to the AONB to the East (XE Philip Russell-Vick Session 4).

3.206 The argument by PCC that HDWPs are "not slender and readily absorbed" (XinC Philip Russell-Vick Session 4) leaves PCC in the difficult position that they are acceptable in single and double configuration in some cases (in place of the 400kV and for the s37 Llandinam connection) but not in others (for CC1 or parallel to the Llandinam line) yet the equipment is the same and it is impossible to identify impacts of sufficient strength to support the differentiation.

3.207 Misapprehension as to the visibility of grid was illustrated by Mr Kibble asking whether looking north from Llanbadarn Fynydd or south from the Glog you would see "*an*

agglomeration of lines", disputed by Gates who said visibility would be limited by topography and distance (XE Ian Gates Session 4).

3.208 PCC accepts that the adverse impacts of grid will not combine with any otherwise acceptable windfarm to render the totality unacceptable (XE Philip Russell-Vick Session 4) and that an acceptable windfarm will not be made unacceptable by grid options.

3.209 The Session 4 grid evidence has answered the EN-1 test of there being "no obvious reason" why any scheme could not be consented, as no-one has identified any reason why any of the five schemes cannot be consented (InspQ Jeffery Stevenson Session 4).

3.210 Landscape and Visual Conclusions

3.211 PCC has portrayed its case as providing a view of the totality of effects of all schemes, including grid (XinC Philip Russell-Vick Session 4). It presents itself as capable of advising on what level of impact is acceptable, in place of each developer considering its own impacts. However PCC accepted that its overall view was no more than an aggregation of the merits arguments advanced in each inquiry session, with no additional level of analysis that offered the decision maker guidance on the acceptable level of impacts (XE Philip Russell-Vick Session 4). There are unresolved differences of opinion between developers and PCC in every Session and you should treat with caution against any conclusion that PCC offers more with its arguments on how they should be resolved.

3.212 There is, in reality, a consensus of professional opinion regarding Llanbadarn Fynydd's acceptability under a variety of landscape and visual criteria. (Ian Gates Proof, paragraph 10.2.3). PCC's inquiry case stands alone from all these.

3.213 Llanbadarn Fynydd is an appropriate scale and located in an accommodating landscape where significant landscape effects will be restricted to the site and its environs where substantial landscape change has taken place over the past century. (Ian Gates Proof, paragraph 10.6.2)

3.214 PCC's unwillingness to recognise transition zones between LANDMAP VSAA's flies in the face of ARUP's refinement exercise.

3.215 PCC's contention that the scheme is simply unacceptable as it is "*...in the wrong landscape*" (XinC Philip Russell-Vick) is untenable even on its own evidence.

3.216 PCC's desensitisation of the SSA C eastern area does not work on an individual or cumulative landscape impact basis, nor does it in relation to the AONB.

3.217 Llanbadarn Fynydd has been sited away from the most elevated locations ensuring its blade tip ZTV is compact. (Ian Gates Proof, paragraph 10.4.1)

- 3.218 The separation distance of 4.6km between Llanbadarn Fynydd and the closest Llaithddu and Llandinam turbines allied to the topography and landcover severely limit significant cumulative visual effects, making Llanbadarn Fynydd appear visually separate according with the separation principle in SNH '*Siting and Design of Windfarms in the Landscape*' (VATT/LAN/02 and Ian Gates Proof, paragraph 10.5.2).
- 3.219 Separation distances, intervening topography and landcover patterns prevent the formation of a '*wind farm landscape*' across the upper Ithon Valley. (Ian Gates Proof, paragraph 10.5.3)
- 3.220 Predicted impacts on residents are low for a 17 turbine wind farm and indicate a suitable site for this type of development. (Ian Gates Proof, paragraph 10.4.8)
- 3.221 PCC's consultants' main concern was potential effects upon residential visual amenity but even then, they felt these concerns '*... do not justify a reason for refusal.*' PCC no longer advances concerns for residents in properties as a reason for refusal. (Ian Gates Proof, paragraph 10.2.2)
- 3.222 Visual impacts to PRowS and local roads are unexceptional and if there is anything different in this scheme to others in Area C in relation to Glyndwr's Way, it is that the route passes closer to the site than to other sites, but that is inconsequential in respect of impact to the totality of that route. Further comfort may be taken on the acceptability of these impacts from CCW raising no opposition despite being charged with protection of the route.

4 CULTURAL HERITAGE

- 4.1 PCC Reasons for Objection of March 2012 contained no historic environment issues and its later Statement of Case Addendum (SOC-SSA-C-ADD1) relates only to cumulative effects with other SSA C east schemes. (Simon Atkinson Proof, paragraph 1.3.1, 1.3.2 and 3.5.2)
- 4.2 Neither Clwyd Powys Archaeological Trust nor Cadw objects (subject to the imposition of standard conditions) either alone or in combination with other wind farms, or contend any inadequacy in the assessment material. (VATT/HISENV/SOCG/SSA-C and Simon Atkinson Proof, paragraph 1.3.3, 3.3.1 and 3.7.1)
- 4.3 The endorsement of both these bodies sits ill with the suggestion by Mr Kibble, adopted during the inquiry by PCC (XinC Andrew Croft) that the Llanbadarn Fynydd assessments were out of step with those of the other eastern area applications, a difference attributable to a combination of differences in terminology used and judgements made in those four independently made assessments (XinC Simon Atkinson).
- 4.4 Similarly, the suggestion that all Atkinson had done with his cumulative assessment was adopt the conclusions of others, was rejected by him, making it quite clear that the

Stances of
PCC, CADW
and CPAT

extracts of other ES material he had referred to were in addition to his own assessments of cumulative effects.

- 4.5 CPAT state "*Direct impacts will be negligible while indirect impacts will be generally low to moderate. Overall this would seem to be a very low impact development in archaeological terms.*" (Simon Atkinson Proof, paragraph 3.7.1 and VATT-CUL-004)

4.6 Legal and Policy Considerations

- 4.7 Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 (CPL-LEG-008) is of particular importance when considering listed buildings and their settings. (Simon Atkinson Proof, paragraph 2.2.2) It should not be considered as discharged by the application of other policy tests at local and national level, but rather that desirability of preserving the settings of these assets is to be considered on its own, noting that the duty is not to resist all change (XinC Simon Atkinson). The Council's legal submission that s66 does not strictly apply in s36 cases is not challenged on the basis that the same considerations should appropriately be in the mind of the decision maker in any event. The s66 test

- 4.8 NPS EN-1 (CD/COM/001) has been our starting point at the inquiry for policy considerations, including the question of what is substantial harm to an asset, requiring consideration of the effects on both designated and non-designated heritage assets, that account should be taken of the desirability of sustaining the significance of assets and that any harm to heritage assets should be weighed against the public benefits of development with greater harm requiring a greater level of justification. (Simon Atkinson Proof, paragraph 2.7.3 to 2.3.9) NPS guidance

- 4.9 These tests are required by policy, but in noting the legal submissions made by PCC in respect of the *Barnwell Manor* case, you should be cautious about criticism made of factors like ability to visually separate old from new. In *Barnwell Manor* the decision maker's reasoning was flawed not because they considered matters such as visual separation, but because they failed then to apply the full range of policy test required by, in that case, the NPPF. The full EN-1 and EN-3 tests have been addressed in evidence in respect of Llanbadarn Fynydd.

- 4.10 This is an appropriate point to comment that in closing PCC has sought to portray our heritage evidence in an especially unfavourable light, something which is unjustified and unnecessary. Take for example the application of the tests from EN – 1 and EN – 3. In Mr Atkinson's proof (together with the ES and SEI, both of which he authored on heritage matters) you will find for every asset a definition of the setting and of its heritage significance. Separately you will find an assessment of the impact on the asset of Llanbadarn Fynydd alone and of any cumulative impact. Visual effect of development plays a part in that assessment, but only to inform heritage significance.

4.11 Yet despite this, and it being enough for the Council to say merely that it prefers the opinions of its expert, criticism is levelled at Mr Atkinson

- for using a formulaic approach to significance (PCC Closing para 274 b.i.), but why so, given he is dealing with many similar types of monument?

- for making no finding of cumulative impact when Llanbadarn Fynydd had no significant effect (PCC Closing para 276c), but why given Llanbadarn Fynydd is the development he was speaking to?

- for accepting a point on Castell y Blaidd in cross examination that was not in his proof (PCC Closing para 274 b. iii.) but are witnesses expected to be censured for agreeing a point that goes beyond their proof?

4.12 These are sufficient as examples of why that type of criticism is unjustified. It is also particularly inappropriate, in that PCC basically agree the impacts on SAMs of Llanbadarn Fynydd alone, in the sense of accepting they are less than substantial. PCC's criticisms here are directed only at cumulative impacts, for which they also have to make good their desensitisation argument, which we say they cannot.

4.13 NPS EN-3 (CD/COM/003) notes that onshore wind farms' time-limited permissions should be taken into account when considering effects on the settings of designated assets and such effects on the historic environment there may be are reversible on the decommissioning of the scheme, whilst the contribution of the wind farm to mitigating climate change will also be of benefit to the historic environment. (Simon Atkinson Proof, paragraph 2.3.11 and 6.3.5)

4.14 Setting, being linked to experience or appreciation of the asset should direct you to experience in a tangible way (XinC Simon Atkinson) the most obvious example being visibility of the asset.

Settings and
visibility

4.15 Changes to the setting of a heritage asset as the result of wind turbines will most commonly occur as a result of intervisibility or direct views between the asset and the proposed development, making it necessary to identify views where intervisibility was intended or where a vista or sight line contributes to the heritage significance of the asset, with effects on the asset assessed as a whole not simply in the views affected by the proposal. (Simon Atkinson Proof, paragraph 2.5.8) Atkinson fully had in mind the different extracts of the EH guidance on setting (VATT-CUL-001) that were put to him, including the suggestion that views were important as one "*moved through the landscape*" (XE Simon Atkinson). The fact remains, however, that it is accepted Llanbadarn Fynydd does not lie on any sight line between any heritage assets (XE Andrew Croft).

- 4.16 The intellectual process of using maps and guides to locate no longer visible remains is less affected by the presence of turbines and as such the evidential value of sight lines between monuments is less affected when relying solely on maps in that way, again suggesting that setting is more based around what can be seen today (InspQ Simon Atkinson). Whilst Croft sought to argue that degradation of a monument did not reduce its significance, he acknowledged that as visibility reduces over time you have to work harder to perceive them, which can be a challenge, even for professionals (XinC Andrew Croft).
- 4.17 The existence of long views from an asset do not necessarily result in the setting being defined as everything that can be seen in those views (XinC Simon Atkinson). PCC seem to suggest wider settings, such as Warren Hill at some 6km being within the setting of Fiddlers Green Barrows (XinC Andrew Croft) and the Moel Dod ES VP8 being within the setting of the Glog at 8km. Extent of settings
- 4.18 Croft rejected the suggestion that defining setting around everything visible from such assets resulted in unmanageably large settings, but then appeared to qualify it by accepting there had to be consideration of actual impact on setting, which for the Glog at 8km was unlikely to be serious (XE Andrew Croft) and that it was right to ask if the relationship between asset and underlying topography could still be seen, which manifestly is still possible in that example.
- 4.19 A point was sought to be made out of the use of the phrase "immediate setting" in the SEI and the omission of that phrase in Atkinson's proof, with the suggestion there may have been the attempt to narrow the setting of assets. This was rejected by Atkinson who pointed to the recognition made of both immediate and wider views (XE Simon Atkinson) and confirmed whilst all may play a part in the totality of a setting, greater weight should attach to the immediate setting that you see particularly associated with a monument, an example being the river valley next to Castelltinboeth (ReEx Simon Atkinson). "Immediate settings"
- 4.20 There is a link here with our case that approaches to a monument can only sensibly be incorporated in the setting of the monument when you are sufficiently close to the monument that it becomes a visible destination for you (ReEx Simon Atkinson). PCC offered a figure of the last 500m or so to differentiate what was meant by the approach to a monument, rather than some wider concept of "remembered view" as you pass through the landscape, accepting a correlation between this and "immediate settings" (XE Andrew Croft). This narrows the apparent gap between the experts, even with Croft's addition that the correlation applied only "*to some monuments*".
- 4.21 PCC criticised as inadequate assessment of views in the round, but these boiled down to a suggestion that in addition to the 34 360° wirelines out from each monument there should have been supplemented by similar (or maybe more) visuals into those Adequacy of assessment

monuments, plus a slightly incongruous challenge that wirelines from monuments in the SEI and proof had not all been taken from precisely the same location (XE Simon Atkinson), which begs the question, where would those "views to the asset" have been from, and what would they have shown with monuments that are rarely distinguishable over a few hundred metres away? No greater substance was contained in the criticism that when Atkinson addressed significance of assets in his proof he did not refer specifically to visibility, for example in relation to RD084 Fiddlers Green barrows and RD251 Banc Gorddwr barrow (XE Simon Atkinson) given that he had done so in the preceding paragraphs when addressing setting.

4.22 Cadw tell us that contribution to the heritage significance of an asset can include considerations that are evidential, historical, aesthetic or communal (CPL-CUL-003) or archaeological, architectural, aesthetic or historic (Glossary to the NPPF, FWL-CON-003). Even if there is harm to the setting of an asset, other aspects of significance may remain unaffected – such as evidential value (XinC Simon Atkinson). Despite the weight put on impacts to setting by PCC it stopped short of saying that any asset being considered has a setting that makes a profound contribution to its significance (XE Andrew Croft and proof para 4.11) and so no asset suffers total loss of significance because of impacts to its setting. It follows that even on PCC's analysis some heritage significance in each asset would remain, regardless of how much development went ahead.

4.23 Assistance in applying these principles can be found in the Kelmarsh decision, where the Inspector relied on separation between turbines and assets (in that case of some 1.5km) to avoid visual confusion about the origins or purpose of either or both, as supportive of impacts being acceptable, Croft going as far as saying turbines would never be read as part of a heritage asset (XinC Simon Atkinson and XE Andrew Croft). Atkinson explained visual confusion as a change making it more difficult to understand the relationship of the monument with the landscape (XE Simon Atkinson).

Previous
decisions

4.24 It was accepted that other principles from Kelmarsh could be applied here, such as

- (a) that where turbines were a noticeable presence in views but did not fill a field of view there could still be appreciation of how the asset sits in the landscape, and
- (b) that turbines would be unlikely to harmonise with historic assets but would be perceived as 21st C products responding to a modern need
- (c) and that they could still be acceptable even if appreciation of heritage impacts might be easier without the distraction they posed, Croft occasionally reminding us that it would be easier to interpret assets without turbines, for example in relation to the Glog barrows (XE Andrew Croft).

- 4.25 The Alliance stressed movement of turbines drawing the eye in a way not apparent from montages (the example given was at Fiddlers Green) a factor Atkinson accepted was relevant to the distraction posed by turbines in views and that EH Guidance noted as relevant to impact on setting (XE Simon Atkinson) but one of which he was fully aware.
- 4.26 An important threshold now in any case involving impacts on heritage assets is how, in practice, to apply the thresholds of "substantial" and "less than substantial" harm as used in NPS EN-1. The thresholds suggested by PCC were advanced as ones of professional judgement, against there being no fixed definitions (XinC Andrew Croft) but not endorsed by any independent decision maker to date (XE Andrew Croft). Whilst describing his interpretation of substantial harm test as "a high bar" he still maintained that degradation of key aspects of the setting of a monument were akin to total loss of that asset and even that his threshold of less than substantial harm was set at "*quite notable changes in significance*" (XE Andrew Croft).
- 4.27 In such cases the considered approach of Inspectors in previous appeals carries an additional degree of independence and rigour. The recent Airfield Farm decision addressed the issue directly and clearly, recording that on a fair reading of the guidance, substantial harm equated with something approaching total loss of the asset (XinC Simon Atkinson) potentially because of the need for exceptional or wholly exceptional circumstances to warrant such impacts (InspQ Andrew Croft). It was accepted the wording of the policy allowed for such an interpretation (XE Andrew Croft). Doing so would be quite consistent with DCLG July 2013 guidance (para 34), that development in the setting of an asset could amount to substantial harm. It could do so, but it still requires you to consider the setting and the extent of the harm to that setting to see if that substantial threshold is met (InspQ Simon Atkinson).
- 4.28 This point was tested with Atkinson who could not accept Mr Croft's hypothesis that substantial harm could arise from impacts within a setting alone that removed key aspects of the significance if other key aspects of significance remained, certainly not if the Airfield farm decision is to be applied (XE Simon Atkinson).
- 4.29 Again there is unjustified criticism of Mr Atkinson here, in saying that as he made no finding of substantial harm in any situation he had failed to engage with policy in a way that provided any assistance to the inquiry (PCC Closing para 271/272). The criticism is excessive. Even the Council accept that what constitutes substantial harm is a matter of judgement for the decision maker, in which case they should not in the same breath (PCC Closing paras 111c and 274d) say that Mr Atkinson was wrong to (i.e. could not) have treated substantial harm as something akin to total loss of significance. Mr Atkinson has given reasons in every case for why he makes no finding of substantial harm. If you feel a different conclusion is justified on those facts, you can use his assessment to do so.

Substantial and
Less than
Substantial
Harm

4.30 Historic Environment of the Site and Surroundings

4.31 The site comprises an extensive area of relatively level elevated land at an altitude of 400-450 m, cut by a number of steep-sided valleys. The higher ground largely comprises improved pasture fields with a smooth grass surface, enclosed by post and wire fencing. Historic OS maps show that this was largely open moorland at the end of the nineteenth century, but subsequently was ploughed for arable and root crops in the mid twentieth century. (Simon Atkinson Proof, paragraph 4.1.2)

4.32 Most of the archaeology identified within the site appears to be post-Medieval in date and, largely speaking, is no longer visible. (Simon Atkinson Proof, paragraph 4.1.5 to 4.1.8)

4.33 It is agreed there are no scheduled monuments within the application site itself (XE Andrew Croft).

4.34 The nearest designated historic landscape, which would be treated as an asset in its own right under NPS EN-1 (XE Andrew Croft) is Caersws Basin, approximately 7 km from the nearest turbine from which there will be negligible visibility that would not be expected to affect its historic character in any way. (Simon Atkinson Proof, paragraph 3.4.1)

Absence of designated historic landscape

4.35 As the Llanbadarn Fynydd proposal will not impact on any registered landscape no ASIDOHL has been completed for this scheme and no heritage consultee has requested that one. (Simon Atkinson Proof, paragraph 3.4.5/6) the Alliance accepting that it has merely raised why some schemes used ASIDOHL and others didn't, rather than offering it as a criticism. (XE Jonathan Edis)

4.36 PCC's argument that the site is no less valuable because it is not in a registered landscape is right in the simplistic sense that not being registered does not alter the assets within the area or the heritage significance of them (XE Simon Atkinson) but wrong if it is suggested that the unregistered landscape is of equivalent importance to one that is. Manifestly a registered landscape has been recognised as being of the highest value, a non-registered landscape, such as here, has not.

4.37 CPAT's October 2006 desk-based historic landscape characterisation of the TAN 8 Strategic Search Areas in Powys (FWL-CUL-001) contributed to inclusion of this area in the SSA partly as a result of it not been identified as being of any special historic landscape interest, in line with TAN8 (para 2.9, CD/COM/016) that SSAs all display characteristics which include *a general absence of nature conservation or historic landscape designations*. (Simon Atkinson Proof, paragraph 4.2.2 and 6.2.4)

CPAT input to SSA boundary setting

4.38 CPAT (CD/COM/016) describe Historic Landscape Character Area Esgair-uchaf (SSA Powys 41) that would contain 12 turbines as an extensive area of predominantly

enclosed moorland plateau with fields generally appearing to have been formed through a process of nineteenth century enclosure. (Simon Atkinson Proof, paragraph 4.2.4)

- 4.39 Historic Landscape Character Area Bryngydfa (SSA Powys 44) that would contain four turbines CPAT record that either side of the minor road on the line of Glyndwr's Way is predominantly moorland enclosed during the twentieth century through the creation of largely regular fields. (Simon Atkinson Proof, paragraph 4.2.5)
- 4.40 Land within the remainder of the eastern part of SSA C was assessed as predominantly comprising enclosed moorland with some unenclosed land remaining, such as at Banc Gorddwr, those later enclosure resulted in a regular pattern of larger, straight-sided enclosures, sometimes also edged by shelter belts and other blocks of conifers. (Simon Atkinson Proof, paragraph 4.2.9)
- 4.41 Criticism was levelled by PCC at the use by Vattenfall of these character areas, with the suggestion that LANDMAP would have provided more baseline data, but this criticism amounted to no more than saying that landforms important to heritage assessment could straddle landscape areas and that Landmap offers some general landscape descriptions to assist identification of settings, such MNT124 in which the Glog and Two Tumps are located within a prehistoric landscape of key importance. All of which Atkinson was clearly quite aware of in making his assessments (XE and ReEx Simon Atkinson, XE Andrew Croft) and none of which were shown to be in any way unusual for an SSA C site.
- 4.42 PCC's criticism of reliance on the CPAT 2006 Study being smaller than the full TAN8 and final refined boundaries (XE Simon Atkinson) but that criticism is not directed at suggesting there is some more suitable location for turbine development in the refined SSA that has been missed by the developers.
- 4.43 The time spent by PCC in suggesting TAN8 did not look at heritage impacts in any detail (XinC Andrew Croft) does little to advance its case. We have never suggested inclusion in the SAA was all that was needed, hence the full assessment of heritage impacts. If the most that can be said is that TAN8 and the Arup studies were a coarse level of removing the most sensitive heritage areas, that still stands in favour of using sites that passed that process, and again, no suggestion was made by PCC of any more suitable area to which the Llanbadarn Fynydd turbines should be relocated. Atkinson's agreement that this would be the first time detailed layouts had been considered in terms of heritage impacts (XE Simon Atkinson) is hardly revelatory. No filtering out of unsuitable development areas is ever likely to attempt to second guess what detailed layouts will come forward.
- 4.44 It may be suggested that the Western part of the SSA is just such a better place to locate turbines, from a heritage perspective. Comparison with the western part of the SSA was before us at the inquiry solely in response to the suggestion by the Council that the eastern area is the more sensitive but no consistent picture emerges of the eastern

Comparison
between east
and west of
SSA C

area being less suitable for development because of heritage impacts. Numbers and types of monuments are broadly similar with location of assets in open areas. (XinC Simon Atkinson). No reliable case is before you that any area, including the western part of the SSA is better for development not least because Mr Croft offered no assessment of the impacts of the development in the west, stating simply that he found it acceptable. That lack of comparable assessment by PCC also means little reliance can be placed on the references made a number of times that the Llanbadarn Fynydd is not the same as the higher, historically less used and developed land to the west (XinC and XE Andrew Croft).

4.45 It is accepted that Radnorshire has twenty similar monuments to Castelltinboeth and Castell y Blaidd and over 290 similar to the deserted medieval settlements (no-one tried to count the number of barrows, but there was no suggestion these were any less numerous) which were accepted as making the eastern part of the SSA fairly typical (XE Andrew Croft). Despite Croft's comment that he has not been supplied evidence on other areas outside the SSA (ReEx Andrew Croft) he accepted the contention that to the extent there was a reduction in the ability of the lay public to see the history in this part of the landscape, this was not some unique resource that was being affected (XE Andrew Croft).

4.46 The one factor that did emerge clearly in the approach of PCC as a differentiator from west to east in the SSA is the existing presence of turbines in the west (XinC and XE Andrew Croft). That, of course, does nothing to inform you of the capacity of the eastern areas to satisfactorily accommodate development which is the principal consideration before you.

4.47 It also emerges from comparison of the approach to east and west that PCC have not sought to advance any case that removal or relocation of turbines at Llanbadarn Fynydd would reduce impacts to an acceptable level, which they have done in the west (XE Andrew Croft). This provides reassurance that there isn't some aspect of the design chosen that you should approach with concern, in respect of any asset. It shouldn't, however, be interpreted as PCC advancing opposition in principle to any use of the eastern area, because PCC's case is that it is only cumulative impacts that it objects to. At all times we have to remember that we are talking about development wholly within the refined SSA.

4.48 Croft was clear that his expertise extended only to the extent of heritage impacts and their acceptability judged solely within that sphere and that he did not seek to prejudge the question of the adequacy of the heritage capacity to accommodate this development by reference to TAN8 areas, targets, or any other external factors such as these (XE Andrew Croft).

TAN 8 targets not advanced by PCC on heritage matters

4.49 The 5 km area around Llanbadarn Fynydd turbines contains a number of types of scheduled monument, the most common being Bronze Age grassed burial mounds, isolated or in small clusters. CPAT (FWL-CUL-003) note that here barrows are not

Types of monuments around the site

generally located on the highest ground, but a little off the summits, possibly indicating an intent that they should be locally prominent from within a specific area rather than in longer distance views. (Simon Atkinson Proof, paragraph 4.2.14 and 4.2.15)

4.50 The defended Iron Age hill-forts at Castell y Blaidd (RD102) and Castell Tinboeth (RD038), group of cross-dykes to the north of the site and Medieval or post-Medieval settlement sites, such as at Castell y Blaidd and Castle Bank. (Simon Atkinson Proof, paragraph 4.2.16-20) make up the remainder of monuments considered.

4.51 Whilst there are similarities in the form of many of these features, the suggested dates for them does not lead to any conclusion that they would have been contemporary with each other. (Simon Atkinson Proof, paragraph 4.2.16 and 21)

4.52 Visibility of these monuments is variable, with low grassed barrows easily being lost to view in grazing fields, and only where monuments are found on skylines does their visibility increase, generally to around 1.5km (XinC Simon Atkinson). You will have to form your own opinion between this and the suggestion by PCC that visibility of monuments was far higher (XinC Andrew Croft) given that no real attempt was made by PCC to give distances. Instead examples of particularly visible monuments such as at Gors Lydan (itself over 4km from a Llanbadarn Fynydd turbine) were given but still only by reference to "*many kilometres*", or alternatively to euphemisms such not all the monuments being "*shrinking violets*" (XinC Andrew Croft). When distances were mentioned, such as Two Tumps being visible at 6km (XE Andrew Croft) it became clear that Croft was not distinguishing between monument and landform, even to the point of asserting that the heritage significance of both is the same which if right, potentially renders inconsequential the part visibility of a monument plays in its significance, which cannot be right.

Visibility of monuments in the area

4.53 Assertions about integrity of a '*prehistoric and medieval landscape*', advanced by PCC only as relevant to establishing the setting of monuments (XE Andrew Croft) need to be treated with a great deal of caution. Features from similar broad periods are seen as an element of a landscape which is continuing to develop. The dominant characteristics of the Llanbadarn Fynydd site derive from a process of nineteenth and twentieth century agricultural improvement. PCC accept these are modern influences (XE Andrew Croft) and that "time depth" alone, as in the ability to witness historic changes in a landscape is not unusual in most UK landscapes.

Whether prehistoric landscapes are still visible

4.54 Whilst it would not be impossible to reverse this agricultural improvement, it would have to be carefully managed (XE Andrew Croft) in the event anyone should choose to do so in the future, whereas the removal of the turbines is a planned event with a high degree of confidence that it can be satisfactorily achieved.

- 4.55 It would give a false impression to suggest that the scheduled monuments survive within an unchanged or unchanging setting. (Simon Atkinson Proof, paragraph 4.3.2). When considering any contribution this generalised landscape makes to the significance of any of the following assets, the modern influences apparent in the landscape weaken any historic connection with the assets that are located in it (XinC Simon Atkinson). That is not to say you can build anything you want as a result, it is just a recognition of a material change in the baseline that has taken place in the last 150 years (InspQ Simon Atkinson).
- 4.56 PCC suggest monuments in a field of improved grassland do not alter how you see them (XinC Andrew Croft) but at the same time we have Croft telling us that the western part of the SSA is a more untouched, prehistoric landscape and that these modern features are merely an extra layer of "time depth" (XE Andrew Croft). With respect, the Council can't have it both ways.
- 4.57 In the same way suggestions about "intensive occupation" of this area since the Bronze Age run up against a lack of certainty as to what "intensive" means here, given it is unlikely the monuments being referred to here are in any meaningful way contemporary with each other (XE Simon Atkinson).
- 4.58 When reference was made to non-designated assets by PCC, the purpose of doing so was in support of this generalised argument about a historic landscape (XinC Andrew Croft) as no argument was advanced that the impacts on any specific non-designated asset would be unacceptable. The suggestion that these had been somehow missed in the ES was simply incorrect, as non-scheduled monuments had been considered within the site and up to 500m from it (XE and ReEx Simon Atkinson).
- 4.59 The stress laid by PCC on impacts as one "*moved through the landscape*" raised the inevitable question as to what routes were being considered? Atkinson conceded the Kerry Ridgeway was important (ReEx Simon Atkinson) but it was already clear that he placed particular emphasis on this route, the Glog and the Two Tumps area in his assessment and remained of the opinion that visibility of monuments as you did "move through the landscape" was key, meaning something like the inconspicuous barrow RD250 at Banc Gorddwr would be unlikely to feature to a person doing that. Croft accepted there were no modern routes purposely linking these assets together, but that it would be possible for a walker to stitch a route together if they were of a mind to (XE Andrew Croft).
- 4.60 Glyndwr's Way was raised by the Alliance, although not itself a noted historic movement route (InspQ Simon Atkinson) which raised the question of lay people's enjoyment of the history they see in the landscape using such a route, albeit something that might not of itself go to the historic significance of the assets themselves. Here Atkinson drew attention particularly to the ability in all cases to see turbines as modern and separate features, differentiated from the visible historic features (InspQ Simon Atkinson).

Perception
when moving
through the
landscape

- 4.61 Croft accepted the relevance to the Kelmarsh reasoning already mentioned, that impacts from turbines could still be acceptable even if appreciation of heritage impacts might be easier without the distraction turbines might pose (XE Andrew Croft).
- 4.62 Three Round Barrows NW of Fiddler's Green Farm (RD084)**
- 4.63 A group of three round barrows, one of the northern two truncated on the south side by a road verge, located within an area of improved or semi-improved pasture enclosed by post and wire fencing with a footpath running through the group. (Simon Atkinson Proof, paragraph 4.3.4 - 6)
- 4.64 Whilst this group forms part of a broader group of barrows running to Crugyn and Two Tumps in the north, there is little intervisibility between them, partly due to the asset being located on only a small local rise in land, and so possibly not intended to be prominent, even in local views. In common with many of the barrows here, its significance is representative of the prehistoric use in an area now more characterised by nineteenth and twentieth century enclosure. (XinC Simon Atkinson and Proof, paragraph 4.3.9)
- 4.65 If all of Llanbadarn Fynydd, Bryngydfa, Garreg Lwyd and Neuadd-goch Bank were to be built there would be some sense of the asset being surrounded by turbines (Appendix 2 VP17) at a distance of 800 m, some Llanbadarn Fynydd turbines would be partially hidden by topography, the land falling to the turbines that offers visual separation such that on its own the scheme will not have a significant effect. (XinC Simon Atkinson and Proof, paragraph 5.2.2) No significant impacts from L/F alone
- 4.66 The Llanbadarn Fynydd turbines would not however interfere with any sight-lines between this and other barrows or barrow groups in the area, the key consideration raised by Cadw as statutory consultee. Whilst the cumulative effect would be significant this would not result in substantial harm to the significance of the monument and the monument would continue primarily to be seen in the context of the enclosed agricultural landscape in which it is located. (XinC Simon Atkinson and Proof, paragraph 5.2.3). Against this you have the Alliance suggestion that there must be a significant impact because of turbines "*marching up the hill towards the monument in a threatening manner*" to which Atkinson remained firmly of the view that despite the relative proximity (these are the nearest monuments to Llanbadarn Fynydd turbines) there remains visual separation (XE Simon Atkinson). Significant cumulative impacts, but no substantial harm
- 4.67 It was fair to point out that Atkinson's comment that there would be no interference with sight lines from all of the eastern area developments combined, whilst correct for Llanbadarn Fynydd alone, is not for Bryngydfa, which lies between this monument and Warren Hill (XE Simon Atkinson) albeit a sight line between a low visibility monument and a point some 5.6km distant. What was not fair was the suggestion that correction

necessarily leads to a finding of substantial harm, which was firmly rejected by Atkinson (ReEx Simon Atkinson).

4.68 Crugyn Bank Dyke (MG062) and Dyke Near Two Tumps (MG063)

4.69 Cross dykes comprising a linear earthwork with two banks surviving to a height of 1-2 m, with a ditch between. The appearance of a key historic and visual link between these dykes which may have formed part of a single landscape boundary feature within this watershed location. (Simon Atkinson Proof, paragraph 4.3.10 - 15)

4.70 The monuments have little intervisibility with other distant monuments, their settings primarily defined by the fields in which the dyke sits as well as views across to the Two Tumps area. (Simon Atkinson Proof, paragraph 4.3.12 and 15)

4.71 Even in the event of all of the proposed schemes proceeding there would not be a significant adverse cumulative effect on the setting of these dykes, the moderate effect on setting predicted for Neuadd-goch would not be added to materially by the other schemes as they would not alter way in which the monument can be appreciated alongside related features. The Llanbadarn Fynydd turbines would be seen at a greater distance and without increasing the field of view in which turbines would be seen with a separation that avoids any visual confusion. (XinC and Simon Atkinson Proof, paragraph 5.2.4 and 5). PCC maintain that the effect of the turbines changing the setting of what was otherwise an open rural landscape is harmful but the fact that they accept that the original function of the dykes, as boundary markers, and the land that they divided, can still be seen with the turbines present (XE Andrew Croft) help you with the weight to attach to this concern over the generalised rural setting of monuments, which remains even when the function of the monument remains clearly discernible.

Cumulative effects no greater than moderate

4.72 Glog Round Barrows (MG121) and Crugyn Round Barrows (MG122)

4.73 A group of round barrows at the top of a steeply sloped spur of land in an area of large regular post and wire enclosed fields, and at least five barrows to the north of the Crugyn Bank Dyke partially damaged by modern, agricultural activities. (Simon Atkinson Proof, paragraph 4.3.17 and 21)

4.74 Forming an overall Crugyn group apparently situated to overlook the lower ground to north and west, their setting is primarily defined by the elevated spur of land on which the Glog barrows sit, and extending to the Crugyn Barrows the setting of which has been compromised by tree planting weakening the sense of group, and its intervisibility with other barrows. (XinC Simon Atkinson and Proof, paragraph 4.3.19 and 23)

4.75 Again, the significant effect on its setting predicted for Neuadd-goch would not be added to notably as they would not affect the way in which the barrows may be appreciated in

No significant impacts from L/F

their local context or in relation to other barrows or barrow groups. The Llanbadarn Fynydd turbines at 3-5 km would be seen at a greater distance and without increasing the field of view in which turbines would be seen and allowing clear visual separation, including between Llanbadarn Fynydd and Neuadd-goch (XinC Simon Atkinson and Proof, paragraph 5.2.6 and 7) that alone would create only a low magnitude of change and no significant impact.

4.76 Two Tumps Round Barrows (MG048)

4.77 Two grassed mound barrows within an area of upland grazing having the Kerry Ridgeway footpath to the immediate north and a cross-dyke to the west. (Simon Atkinson Proof, paragraph 4.3.29)

4.78 The setting is primarily defined by the elevated area in which the barrows sit, including the sources of the Teme and Mule with visibility from other barrow groups in the area such as at Glog and Crugyn (Simon Atkinson Proof, paragraph 4.3.30), the view west to the Glog being key (XinC Simon Atkinson). The juxtaposition of the Kerry Ridgeway and the Cross Dykes led Atkinson to describe it as an important group of monuments (XE Simon Atkinson). The challenge put to Atkinson was that he was failing to consider key views to the south, also from the Glog and Banc Gorddwr barrows, (XE Simon Atkinson) but it was clear that he had considered all views, and remained of the opinion the views to the west are the defining ones, which will be a matter for your judgement.

Views to the west most important

4.79 Croft accepted a distinction that the view to north and west was in his words "*strong*" with the view to the south described by him as "*also important*" (XE Andrew Croft) a distinction he accepted also informed the difference between immediate and wider setting.

4.80 All four schemes would be seen to the south, Neuadd Goch closest, with Llanbadarn Fynydd visually separate beyond this and Bryngyddfa and Garreg Lwyd further to the southeast, this separating effect of topography accepted by Croft (XE Andrew Croft). There would be no visual confusion and no sense of enclosure in views toward the related barrow group at Crugyn. Appreciation of the barrows in the context of the ridge on which they are located would be unchanged, hence no significant adverse individual or cumulative effect on the setting of the monument. (XinC Simon Atkinson and Proof, paragraph 5.2.9)

No individual or cumulative significant impacts

4.81 Banc Gorddwr barrows (RD250 and RD251)

4.82 The northern of these is a small single grassed mound within an area of upland grazing situated within the open moorland of Banc Gorddwr suffering a degree of erosion from agricultural activities, it has improved or semi-improved pasture lying to the north and is

enclosed by post and wire fencing with a pond and a minor road nearby. (Simon Atkinson Proof, paragraph 4.3.36/37)

- 4.83 The southern is a single barrow located within an area of coarse grass pasture that is not locally prominent with few surrounding features apart from a minor road to the west. Neither is locally prominent with little if any intervisibility remaining between it and the Crugyn and Two Tumps barrow group of which they form part. (Simon Atkinson Proof, paragraph 4.3.38 to 44)
- 4.84 The significant effect on setting predicted for Neuadd-goch Bank would not be meaningfully added to by any of the other schemes, Llanbadarn Fynydd being seen at a greater distance, without increasing the field of view in which turbines would be seen, and located outside the open moorland of Gorddwr historic landscape character area (SSA Powys 42) in which the monuments are located. (Simon Atkinson Proof, paragraph 5.2.12 and 13) No significant impact from L/F alone
- 4.85 An additional significant cumulative effect is predicted to the southern barrow from Llanbadarn Fynydd, due to some increased sense of enclosure of the monument, however the Llanbadarn Fynydd turbines would not interfere with any sight-lines between this and other barrows or barrow groups in the area. Accordingly, there would not be substantial harm to the significance of the monument and because Llanbadarn Fynydd turbines would not affect the way in which the barrow may be appreciated in the context of its surrounding moorland. (XinC Simon Atkinson and Proof, paragraph 5.2.13) Cumulative impacts would not amount to substantial harm
- 4.86 Castell Tinboeth (RD038)**
- 4.87 A defended enclosure, of medieval date, possibly with Iron Age elements set in an elevated and prominent position on the top of a spur of higher ground overlooking the River Ithon, which defines its setting, terminating at a steep escarpment to the river, relevant to its historic function as a defensive site. (Simon Atkinson Proof, paragraph 4.3.57). The fact that it is best appreciated from Moel Dod (Gates LVIA 5 Fig 8b) from, where it will be seen to the south east, with Llanbadarn Fynydd turbines away to the left (XinC Simon Atkinson) is an indicator of how the important parts of the setting focus on the river valley, not the windfarm. Even Croft partially accepted this distinction, seeing a "particular relationship" with the river valley whilst also arguing a link to the uplands around it (of which Llanbadarn Fynydd would occupy only one part) that the monument would have been used to manage (XE Andrew Croft). Setting defined by the Ithon River
- 4.88 Turbines of all four schemes would be seen as two groups to the north and northeast of the monument at a distance of 4.4 km and beyond (Appendix 2 VP1). We can note this is a distance that when separating the existing P&L windfarm and the Glog Croft saw as making them "distant and separate" but here in the east he concluded would make the turbines "very visible and prominent". We leave it to your judgement to assess whether Extent of visual separation

this apparent inconsistency of approach is adequately explained by the different topography between monument and turbines in each case, as suggested by Croft. I suggest this brief glimpse of his thinking from the western side again shows a lack of consistent approach between each side.

- 4.89 All turbines would be seen as be seen as relatively distant and separate to the spur of higher ground on which the monument is located. Whilst turbines would be visible, they would be seen to be beyond the setting of the monument with clear visual separation and no impact on the appreciation of the asset in its local setting such that and would be a low magnitude of change and no significant individual or cumulative effect on this monument. (XinC Simon Atkinson and Proof, paragraph 5.2.18) No significant impacts
- 4.90 Castell y Blaidd (RD102)**
- 4.91 Most likely to be a small Iron Age hill fort, possibly Medieval, and a locally prominent feature when approached from the north or south along Glyndwr's Way. (Simon Atkinson Proof, paragraph 4.3.46)
- 4.92 Its setting is primarily defined by the hill on which it sits and the immediately surrounding land which it overlooks, extending across the spur of higher ground on the eastern side of Gwenlas Brook. As it does not occupy the highest ground it may not have been intended to be prominent. (Simon Atkinson Proof, paragraph 4.3.47). Castell y Blaidd offers a useful contrast to Castelltinboeth, the latter being very obviously designed around the particular feature of the river valley, the latter less obviously demonstrating such a strong relationship with its surrounding topography (ReEx Simon Atkinson) which counters the suggestion by PCC that Castell y Blaidd was intended to control the landscape around it (XinC Andrew Croft). Setting not clearly linked to surrounding topography
- 4.93 There may be some sense of enclosure of this monument, PCC pointing to the effects on the Gwenlas Valley shown in Atkinson wireframe 17, but even there the turbines are beyond the valley giving visual and functional separation from it (XE Simon Atkinson). Bryngydfa and Garreg Lwyd Wind Farms together would result in a significant cumulative effect, but Llanbadarn Fynydd will not contribute to this and without these schemes there would be no significant adverse effect on the monument, even in the event that all other SSA C schemes were developed. (Simon Atkinson Proof, paragraph 5.2.15). L/F not creating significant impacts
- 4.94 Fowler's Arm Chair Stone Circle & Round Cairns, Banc Du (RD039)**
- 4.95 A stone circle (being a much less common type of monument than barrows (InspQ Charles LeQuesne) with broader views in most directions but at 5 km from Llanbadarn Fynydd there will be no significant individual or cumulative effect on the setting of this monument. (Simon Atkinson Proof, paragraph 5.2.25).
- 4.96 Blaen-Nant Ddu (82989 LBII)**

- 4.97 The fact that significant time was being taken over only one listed building for a development of this size was not disputed as being supportive of this location as being appropriate for development, but we should record PCC comment that this is not unusual for mid Wales (XE Andrew Croft).
- 4.98 Blaen Nant Ddu, in addition to being a small nineteenth century farmhouse with a range of associated farm buildings (that being the description in the official listing used in the ES) set alongside a bend in the road within a thickly wooded area is also the single asset where PCC contend Llanbadarn Fynydd alone will result in substantial harm to a heritage asset. Substantial harm alleged by PCC
- 4.99 Surrounding trees tightly enclose the buildings (a number of which are of modern construction) and greatly restrict any views in or out, also limiting the setting of the farm to its immediate surroundings. They include the smaller irregular fields immediately surrounding the farm buildings, acknowledged (XE Andrew Croft) to be an older landform that would have been the field system existing that the building was constructed to serve. (XinC Simon Atkinson and Proof, paragraph 4.4.4). The modern farm buildings, which PCC accept reduce the asset's sensitivity to change (XE Andrew Croft) are changes within the asset itself, rather than external factors desensitising the landscape to further change, as suggested by the Alliance (XE Simon Atkinson). Sensitivity of the asset reduced by changes made to it
- 4.100 PCC dismissed the relevance of the visible differences in the historic use of land around the farmhouse, preferring instead to argue for a link to the general rural landscape that is experienced on the approach to the asset (XinC Andrew Croft) i.e. as this is a farmhouse, so all the farmland around it is linked to it (XE Andrew Croft). This remains a difference between us, and even Croft accepted there had to be some limit to the amount of farmland in the setting, so opted for the valley sides and land up to the adjacent roads incorporating some turbines, which ultimately calls for an exercise of your judgement to resolve. Dispute over extent of setting
- 4.101 Whilst the Llanbadarn Fynydd turbines would theoretically be seen as group to the south and west of the building (Appendix 2 VP29), in reality the mature trees and farm buildings are likely to filter views and turbines will also be located on higher ground, in the larger fields of the later 19th and 20thC enclosures, away from the area of small irregular fields around the farm. Llanbadarn Fynydd is sufficiently separate to avoid visual confusion with the asset and allow it to continue to relate to the smaller fields in which it is located (XinC Simon Atkinson) or, put another way, the tall modern structures that from the road above the farm will be seen together with it clearly do not relate to it and will be seen as separate features (XE Simon Atkinson). Questions of prominence of turbines from such vantage points are rightly more ones of landscape impact (InspQ Simon Atkinson). Turbines of other wind farms within the eastern part of SSA C will not be visible and so there

would be no significant cumulative effect on the setting of this building. (Simon Atkinson Proof, paragraph 5.2.27)

- 4.102 The argument that substantial harm would be caused to this listed building by Llanbadarn Fynydd turbines alone was maintained despite an acceptance that changes there would be in the setting could only ever have a partial effect on the heritage significance of the asset, and despite the Airfield Farm Inspector's approach to the meaning of substantial harm being something akin to total loss of significance (InspQ Andrew Croft). PCC's substantial harm argument
- 4.103 Whilst other listed buildings were mentioned in the proofs, Blaen Nant Ddu sets the high water mark of whatever impacts there may be, so is an appropriate base on which to undertake consideration of the duty under s66, which stands independent of the substantial/non-substantial considerations. On the evidence before you of the level of adverse impact it is open to you to conclude that even having regard to the desirability of preserving the setting of this and other listed buildings, permission can be granted. Indeed no-one has advanced a case that you cannot do so or that s66 directs you to recommend refusal. (InspQ Andrew Croft) The s66 test
- 4.104 PCC's opposition to cumulative effects of SSA C east schemes**
- 4.105 PCC raise no cultural heritage objection to the impacts of Llanbadarn Fynydd alone only by reference to cumulative impacts with other schemes. Support for this stance was sought to be drawn from there being no SEI on cumulative impacts before the Council when it made its determination in March 2012 (ReEx Andrew Croft). This argument is not assisted by CPAT and Cadw having raised no similar objection having seen that cumulative material. PCC opposition only to cumulative impacts
- 4.106 In fact, the only difference between Croft and the PCC Committee resolution that offered no heritage objection on Llanbadarn Fynydd is his finding on Blaen Nant Ddu, something that would have been open to them, but on which no comment was made, or even suggested as an issue.
- 4.107 This casts even greater attention on the substance of the Council's argument that allowing Llanbadarn Fynydd would desensitise the historic landscape to a point that would, in fact they say now only "could" (XE Andrew Croft) make it impossible to refuse subsequent applications that in totality would create substantial harm to the range of assets claimed. PCC's desensitisation argument
- 4.108 The extent of those cumulative impacts have been addressed already, but even irrespective of them it is apparent, in a way that PCC have not sought, or indeed are not able to refute (XE Andrew Croft), that even on its own analysis, there is a level of harm to monuments beyond the less than substantial harm PCC predict to be caused by

Llanbadarn Fynydd alone, which the planning system is quite capable of recognising and, if appropriate, preventing.

4.109 Any consideration of cumulative impacts has to start from the premise that mere consideration of combined impacts of as yet un-consented projects carries with it no presumption that such future consents will be granted. Every project has to be looked at on its own merits at the point a decision is made upon it. On top of that well accepted point of principle, even on the Council's analysis of impacts there is a divide at some point beyond the granting of permission for Llanbadarn Fynydd where there will be a move from less than substantial to substantial impacts which, if correct, would offer the decision maker a robust basis against which to make a separate decision on the merits of those later schemes without those future permissions inevitably being granted (XinC Simon Atkinson).

4.110 That is assuming PCC are right with its conclusions of substantial harm arising from all the eastern schemes together, which is not the finding of Atkinson, who sees significant cumulative effect on the settings of only two scheduled monuments Banc Gorddwr barrow (RD251) and Three Round Barrows NW of Fiddler's Green Farm (RD084) but in each case amounting to less than substantial harm and no significant cumulative effects on the settings of listed buildings (VATT/HISENV/SOCC/SSA-C and Simon Atkinson Proof, paragraph 6.2.1/5).

4.111 It follows that there are impacts but of an order that requires no consideration of exceptional circumstances, let alone wholly exceptional circumstances to be present, just the weighing up of such impacts as there are in the overall planning balance, in a similar way to how that will also be done in respect of the developments in the west of the SSA, plus the separate application of the s66 test in respect of the listed buildings, already mentioned.

4.112 Cultural Heritage and Grid

4.113 Limitations on what can be achieved by the Session 4 grid evidence apply just as much to cultural heritage, in terms of the purpose of considering impacts (given that infrastructure is not before this inquiry) and the link between any individual project and grid options. Applying the tests for impacts on heritage assets that have been done for the windfarms is impossible for grid due to insufficient information.

4.114 Notable points from the written evidence include :

- (a) Between SSAs B and C there is no potential for significant cumulative effects.
(Simon Atkinson Statement, paragraph 1.3.5)

- (b) Cumulative effects arising between Llanbadarn Fynydd and the 132kV Llandinam-Welshpool line are restricted to the section from the A483, across Old Neuadd Bank to the B4355 crossing at Black Gate. (Simon Atkinson Statement, paragraph 2.2.3)
- (c) PCC accepts the need for the 132kV Welshpool connection, with the principal contention on historic environment being whether, in the area of Kerry Hills, undergrounding is required to avoid 'substantial harm' to the cross-dyke comprising Crugyn Bank Dyke (MG062) and Dyke Near Two Tumps (MG063). (Simon Atkinson Statement, paragraph 3.1.3)
- (d) Where the OHL continues north from Black Gate, topography ensures there will be limited visibility of turbines and the distance between designated assets and turbines is too great to give rise to potential 'sequential' effects as an observer moves between monuments. (Simon Atkinson Statement, paragraph 3.1.9)
- (e) The only significant effect of the northern spur would be an incremental effect to the Round Barrow S of Ciderhouse Wood (MG109) which is of doubtful archaeological origin according to CPAT. (Simon Atkinson Statement, paragraph 3.2.5/6)
- (f) Separation distances to the grid route mean Llanbadarn Fynydd with CC1 and CC2 would not be likely incrementally to have a significant effect on Bryn Cwmyrhiwdre Round Barrow (MG280) or Fowler's Arm Chair (RD039). (Simon Atkinson Statement, paragraph 3.3.4)
- (g) In terms of the entire CC1-CC4 route there are no scheduled monuments within the defined 100m wide corridor with those within 2 km being prehistoric burial and ritual monuments typical for a routing corridor of this size in mid-Wales. It is expected that there will be some changes in their settings. There are few listed buildings higher than Grade II within 2 km of the route corridor as well as the Clywedog Valley and Caersws Basin Registered Historic Landscapes. (Simon Atkinson Statement, paragraph 3.3.6)
- (h) As the selection of route options adhered to the Holford Rules, where possible following the landscape grain, being contained by topography, using woodland planting and not physically disturbing any designated heritage assets, it should avoid unacceptable effects. (Simon Atkinson Statement, paragraph 3.3.7)

4.115 Cultural heritage conclusions

4.116 Notwithstanding the inevitability of some visibility between monuments and turbines the key factors in the acceptability of this site from a heritage perspective include that:

- (a) there are no high value assets or pre-medieval visual remains in the site,

- (b) turbines are 3km from the main group of Glog/Two Tumps barrows,
- (c) there is clear visual separation and hence no visual confusion between any assets and turbines,
- (d) the nearest registered historic landscape is at least 7km away,
- (e) modern site features are accommodating to the siting of turbines,
- (f) monuments, settlement and defensive sites within 5km are typical for the Radnorshire area
- (g) to the extent impacts from grid can be assessed there seems little likelihood of unacceptable effects
- (h) the desensitisation argument is equally ineffective in this context as it is in respect of cumulative landscape issues.

In which case it is not surprising that neither CPAT nor Cadw objected to this development (XinC Simon Atkinson and proof paragraph 6.1.1 to 6.1.5) as it should rightly be considered unobjectionable.

5 TRANSPORT

5.1 Local/Site Access Issues

5.2 PCC objections have been resolved by a Statement of Common Ground between Vattenfall, PCC and Welsh Government Transport (WGT) (VATT/TRANS/SOCG/SSA-C) confirming no significant local transport effects from access off the A483, C1057 and U1298, subject to mitigation conditions (Peter Mansell Statement, session 1, paragraph 1.2) and Vattenfall having agreed to produce a Travel Plan to maximise the use of sustainable travel by construction workers associated with the development (Peter Mansell SOCG, session 1, paragraph 4.1.1).

5.3 Alliance (Durgan) concerns have been answered in that:

- (a) the duration of AIL deliveries depends on the convoy size and actual concrete imports may be less than the assumed worst case of all requirement being met by imported concrete (Peter Mansell Statement, session 1, paragraph 2.2 and 2.3);
- (b) the operation of the intervisible passing places on the C1057 will be appropriately managed by the contractor (Peter Mansell Statement, session 1, paragraph 2.7); and

(c) the impact of the proposed site access on the residents of Hafod Fach, who are interested parties, has not been raised by them (Peter Mansell Statement, session 1, paragraph 2.17).

5.4 We do not accede to the request that an indemnity should be offered to owners of properties adjacent to highways from the effects of HGV and AIL movements as these roads are or will be suitable for such vehicles. (XE Peter Mansell Session 1)

5.5 Strategic Transport Issues

5.6 Vattenfall has been actively involved in developing the sTMP for wind farms in SSAs B and C to minimise the impact of AILs on public highway users. (Peter Mansell Proof, paragraph 3.1)

5.7 In response to the suggestion of sharing an AIL route from a South Wales port to avoid additional works, Vattenfall remains fully committed to the sTMP northern route. If a southern route is approved, it would offer an alternative, longer route and flexibility if required for unforeseen reasons. (Peter Mansell Proof, paragraph 3.3) The routes can be coordinated to limit interference with each other and surrounding traffic (Session 4 Transport Hearing).

Northern route preferred

5.8 Sections 1 to 5 of the sTMP were finalised in August 2012 and agreed by WG. (Peter Mansell Proof, paragraph 3.6). Most questions raised during the hearing session apply to any scheme using the northern route. They established that there could be between three to five convoy days per week, convoys would not move in circumstances considered unsafe by the escort police, including inadequate light. Police would not be diverted from front line policing duties or work outside normal expectations and the sTMP has taken account of all s36 and TCPA applications (Session 4 Transport Hearing).

STMP WG approved

5.9 Variability in the starting dates of schemes, due to grid connection availability or otherwise, has been assessed and the sTMP and Transport Tool shown to be capable of managing AILs within existing levels of predicted impacts or less (Session 4 Transport Hearing).

5.10 Questions have been raised over how and why communities can and should absorb impacts from AIL movements. The sTMP has emerged as the shortest, most convenient means of facilitating the developments and the public will be able to anticipate and react to predictable and well publicised movements. The community representatives have not indicated that a lower level of impact from fewer schemes would be acceptable (Session 4 Transport Hearing). Out of fairness to the communities in knowing what to expect and certainty for developers, the sTMP should be specifically referred to in a planning condition as the basis of future traffic management details to be agreed (Conditions Session).

- 5.11 Shropshire Council Planning Department's letter of objection has not raised any new issues and is at odds with its highways department raising no objection during the sTMP consultation stage (Mansell Response to SC 12th March 2014 and Session 4 Transport Hearing). Shropshire Council
- 5.12 PCC's objection relating to the significant upgrade of the C2058, the Vastre, is of historic interest only which no longer forms part of sTMP Section 6 or the application. (Peter Mansell Proof, paragraph 3.9 and Session 4 Transport Hearing) The Vastre
- 5.13 Use of Heol Treowen by AILs would be supported by PCC only as an emergency measure at best hence the consideration of the haul road between Heol Ashley in the Mochdre Industrial Estate and the A483, south of Newtown as the basis of the revised sTMP section 6. (Peter Mansell Proof, paragraph 3.14) Heol Treowen
- 5.14 The Mochdre Industrial Estate route was submitted as SEI in February 2014 and demonstrates an acceptable route for AILs between Newtown and SSA C, agreed by WG. (Peter Mansell Proof, paragraph 3.17, Session 4 Transport Hearing, WG agreed version of sTMP 6 dated 12th March 2014) Mochdre Industrial Estate
- 5.15 Whilst the Newtown By-Pass could be open for traffic by 2018, SSA C developers are not currently able to rely on it as an available route (Peter Mansell Proof, paragraph 3.7/8). If it does become available, it is likely to be in everyone's interest for it to be used by AIL convoys in preference to the Mochdre or Heol Treowen routes (Peter Mansell Session 4 Hearing), in which case a revised TMP would be developed with WG. Most of the works to the A483 south of Newtown will still be required. (Peter Mansell Proof, paragraph 3.19). The by-pass team are aware of the sTMP, which is not seen as any barrier to delivery of the by-pass (Peter Mansell Session 4 Hearing). Newtown ByPass
- 5.16 There is no evidence of any impacts of concern to the occupants of the Mochdre Industrial Estate from the use of this route, either from the pre 7am, 4 minute transit or the time needed to hold traffic to allow the convoy to pass, or in respect of allowing emergency vehicles to pass the convoy. (Peter Mansell Session 4 Hearing).
- 5.17 Similarly transit times through Newtown will avoid heavy traffic conditions and the 4 month delivery programme gives ample opportunity to work outside the dark winter months (Peter Mansell Session 4 Hearing).
- 5.18 Whilst the construction works for sTMP Section 6 require the use of land outside of what is understood to be the highway boundary, it adjoins the highway and is predominately agricultural. Apart from the Mochdre link requiring a culvert and significant embankment, the works involve localised widening of bends to provide overrun or oversail areas. (Peter Mansell Proof, paragraph 3.22) Whilst discussions continue with landowners, there appears to be no insurmountable problems with land control, including from WG (Peter Mansell Proof,

paragraph 3.24 and Session 4 Hearing) and no significant environmental effects are anticipated along the route. (Peter Mansell Proof, paragraph 3.27)

- 5.19 The worst potential cumulative impacts of non-AIL construction traffic are a slight increase (37.4%) in HGV traffic in October 2018 on Link 25 and a moderate increase (62.0%) in April 2019. These are acceptable as increases to low starting points for traffic on this part of the trunk road, which has only a quarter of expected trunk road traffic flow, of which HGVs comprise 1 in 17 vehicles compared to 1 in 8 north of Newtown. The greatest impact represents only one additional HGV every 12 minutes. (Peter Mansell Proof, paragraph 4.7 to 4.18 and Session 4 Transport Hearing)
- 5.20 This is the worst case as if stone is imported from quarries east of Llandrindod Wells and concrete from Newtown, traffic impacts on Dolfor would be less. (Peter Mansell Proof, paragraph 4.13 and Session 4 Transport Hearing). The majority of predicted impacts from temporary construction traffic are within the 30% increase threshold suggested by IEA Guidelines for noticeable environmental effects and where this is approached or occasionally passed, impacts are based on low existing traffic flow figures (Session 4 Transport Hearing).
- 5.21 Predicted traffic impacts are also a reason why restoration of the site should be limited to 1m below ground level, leaving turbine bases in situ, as this is the basis upon which environmental assessment has been taken. In this case, of traffic movements not being required for what would be extensive demolition works (Conditions Session).
- 5.22 No evidence of highway safety concerns have been advanced relating to the sTMP to challenge its acceptability. It is reasonable to expect that drivers will obey the usual rules of the road if they do encounter HGVs or AILs (Session 4 Transport Hearing).
- 5.23 Permanent widening of the A483 south of Newtown is a benefit. The proposed passing places, agreed with WG, will not form part of the permanent highway. These improvements will not cause delays over that associated with ongoing maintenance works, regulated by existing design guides and traffic signs standards, and will only involve traffic control when off-site works are tied into the main carriageway (Peter Mansell Session 4 Hearing).
- 5.24 HGV routes identified in the Construction Traffic Management Plan (CTMP) can be policed by requirements for route signing and lorry identification to allow the public to report any breaches (Session 4 Transport Hearing).
- 5.25 AIL traffic was originally the cause of the delay in determination of these applications. Through hard work and the application of all parties, these concerns have been overcome and reliable, deliverable solutions achieved.

Traffic
conditions on
the A483

6 NOISE

- 6.1 A Statement of Common Ground with PCC includes agreement on single and cumulative issues relating to construction, baseline data, noise predictions and limits in conditions. (Darran Humpheson Proof, paragraph 2.2)
- 6.2 ETSU-R-97 (CPL-NOI-001) remains the principal guidance document on the assessment and rating of noise from wind turbines (Darran Humpheson Proof, paragraph 4.1) and there is no adduced evidence of any intended revisions (XE Matthew Hayes). ETSU addresses internal noise levels and applies to the proposed turbine size (XinC Darran Humpheson). Alliance concerns raised over increases in noise over low background levels within ETSU levels were acknowledged to include instances where turbines would be audible (XE Darran Humpheson) but inaudibility of turbines is not the basis of ETSU. Use of ETSU
- 6.3 The IoA Good Practice Guide (May 2013), endorsed by Welsh Assembly, (Darran Humpheson XinC and proof, paragraph 4.3) provides reassurance that the noise predictions can be relied upon. Use of IoA guidance
- 6.4 The February 2013 SEI (AD/VATT/018) used the draft recommendations of the IoA's 2012 consultation document (Darran Humpheson Proof, paragraph 4.5).
- 6.5 Noise limits**
- 6.6 A single set of noise limits have been agreed for non-stakeholder dwellings, regardless of time of day. Different fixed limits were used, either 38 dB or 40 dB $L_{A90(10min)}$ depending upon the measured or assumed prevailing noise environment at each dwelling. (Darran Humpheson Proof, paragraph 4.11)
- 6.7 The lowest measured background data was used to derive the lowest set of noise limits at each location (Darran Humpheson Proof, paragraph 4.12) and monitoring locations were agreed with the independent PCC EHO (InspQ Darran Humpheson), including moving the Lower Foel equipment to a location reflecting actual amenity areas (XE Darran Humpheson). Limits at specific properties
- 6.8 Mr Halsey's request for raw noise data for his property (XE Darran Humpheson) we were not aware of as an unmet request or outstanding issue but in any event that information was supplied after Session 1.
- 6.9 The single table of limits preserves future cumulative noise headroom capacity within SSA C, offers enhanced amenity for dwellings in lower background noise level areas (Darran Humpheson Proof, paragraph 4.13) and is lower than those proposed in the 2013 SEI (AD/VATT/018). The smallest headroom figure predicted is 0.9dB at Lower Cochrane, with the average being approximately 7dB, and at Mr Halsey's property a 5dB minimum (XinC and InspQ Darran Humpheson). Operational noise at Lower Foel Farmhouse will be within the 38dB fixed limit and not significant, even when considered cumulatively with Neuadd

Goch Bank. (Darran Humpheson Proof, paragraph 5.37). Mrs Siddel's sincerity is not doubted in presenting her experience in South Ayrshire, but no meaningful comparisons can be made with the SSA C assessments.

6.10 Lower Cochrane is the only property that cumulatively might experience noise from a windfarm in each direction presenting similar noise levels, but is mitigated by high background noise levels from the A483 (InspQ Darran Humpheson).

6.11 Miss Flanders raised concerns over noise 'echo' around the hills. The IoA Guide (CPL-NOI-005, paragraph 4.3.9) allows for situations where receivers could be affected by multiple reflection paths. Llanbadarn Fynydd's topography does not traverse significant valleys even when considered cumulatively with Garreg Lwyd (Darran Humpheson Proof, paragraph 5.41). Her concerns over use of a proxy background noise level from Neuadd Goch were answered as Fiddlers Green is sufficiently distant and with a minimum headroom of 3dB, so is not "controlling" the noise levels (XinC and InspQ Darran Humpheson).

6.12 Alliance issues

6.13 The Alliance suggested, without reference to any guidance, that daytime noise levels should be 35dB to provide better amenity for residents. However 38dB (which applies to schemes that are consented) is a reduction from ETSU, is agreed with PCC and is not predicted to occur, bar the few instances of 40dB fixed limits, unless the alternative background plus 5dB standard is applied in noisier conditions (XE Darran Humpheson).

6.14 Regarding the concern that noise affects those who are enjoying the countryside, turbines will generate audible noise no greater than 50 dB $L_{A90(10min)}$, even on rights of way. (Darran Humpheson Proof, paragraph 5.3)

6.15 The Alliance sought confirmation that noise assessments adopted the correct operating modes for candidate turbines. The 2013 SEI (Section 4.6) considered cumulative noise using identified candidate turbines with manufacturer's safety margins applied to the highest sound power level for a worse case assessment. (Darran Humpheson Proof, paragraphs 5.6 and 5.7)

Relevance of noise curtailment modes

6.16 The Vestas V90-3.0 MW turbine in noise Mode 3 demonstrates Llanbadarn Fynydd's ability to operate within the noise limits of the 2007 ES (AD/VATT/003-005) at the most noise sensitive dwellings of Garn, Cwm-mawr and Lower Cochran (Darran Humpheson Proof, paragraph 5.14) although other turbines could be used (InspQ Darran Humpheson). The predictions show the proposed condition can be met but does not require the candidate turbine to be installed or operated in Mode 3 (XE Darran Humpheson). Post-consent noise assessment will result in less curtailment than a 'blanket' non-standard operating mode, which may only be necessary under certain wind speeds and directions. (Darran Humpheson Proof, paragraph 5.13)

- 6.17 Latest manufacturer's sound power level data show Mode 3 is only needed between 6 to 11 m/s wind speeds. Outside this, other operating modes can be used without any impact on the calculated turbine noise levels at dwellings. (Darran Humpheson Proof, paragraph 5.15)
- 6.18 All noise modes achieve the rated power of 3MW at wind speeds from 16 m/s to 20 m/s. (Darran Humpheson Proof, paragraph 5.9). In assessing the likely power loss impact, the mitigation strategy shows that compared to all turbines operating in Mode 0, the yield calculation is 0.2% lower for Mode 3 used only when needed, compared to an 11.7% reduction for blanket Mode 3 across all turbines, due to the affected properties of Cwm-mawr and Lower Cochran not falling within the prevailing wind direction from the south west. (Darran Humpheson Proof, paragraph 5.19)
- 6.19 Vattenfall has said it will demonstrate compliance with the noise condition for various wind conditions (Darran Humpheson Proof, paragraph 5.20 and .23) but this is no different to what any developer of a windfarm will do in its commissioning period and there is no need for a separate condition requiring additional approvals of turbine type or noise profile, beyond that which has already been done (Brett Kibble Question, Conditions Session). Continuous noise monitoring through operation was also requested but is not agreed (XE Darran Humpheson) and no site-specific factors were advanced to justify it.

6.20 Amplitude Modulation

- 6.21 The evidence of Mr Weller (who conceded he was not an expert available for full cross examination) addressed all sites, not any particular site. A large flat area, like East Anglia, was suggested for a link between high wind shear and AM (XE Matthew Hayes). This is not a description applied to Area C sites.
- 6.22 Examples of recorded AM played were not reliable control samples, merely illustrative. The issue is whether there should be a precautionary condition controlling AM (Kimblin XE Weller) to which we say no, as Inspectors have not applied Denbrook style conditions due to enforceability and precision concerns, (XinC Darran Humpheson) such as the Batsworthy Cross decision (VATT/INS/06) and Brechfa NSIP examination (InspQ Matthew Hayes).
- 6.23 AM was reconsidered in Session 4, in terms of new information and the potential use of a condition to control it, should it occur. Whilst Mr Humpheson did not attend, Vattenfall participated in the hearing session and as anticipated, no site specific issues arose in terms of the drafting of a condition.
- 6.24 Prior to session 4 in December 2013, new information was published by RenewableUK (ReUK) relating to AM wind farm noise. (Darran Humpheson Session 4 Statement, paragraph 1.3)
- 6.25 This points to local stall as the more common cause of 'other' AM (OAM) and adverse wind shear conditions as the most likely non-uniform in-flow condition that can occur at a

wind farm. It indicates that local stall can be reduced by operating blades at a lower angle of attack or using aerofoils with a higher stall angle. (Darran Humpheson Session 4 Statement, paragraphs 3.4 and 4.5)

- 6.26 An investigation into wind shear at Llanbadarn Fynydd in accordance with IOA Good Practice Guide using 12 month on site wind speed data shows the site compares favourably with IOA data, with wind shear exponents towards the lower end of the range for night-time and whole-day annual averages. (Darran Humpheson Session 4 Statement, paragraphs 4.2)
- 6.27 Wind shear induced AM is therefore unlikely to be an issue at Llanbadarn Fynydd. (Darran Humpheson Session 4 Statement, paragraph 5.1)
- 6.28 The University of Salford study points to limited occurrence of OAM at operational wind farms. The ReUK research indicates a possibility that OAM could occur at planned wind farms (Darran Humpheson Session 4 Statement, paragraph 5.2) but certainly not at all wind farms in all conditions (Session 4 AM Hearing).
- 6.29 The ReUK research offers no reliable method for predicting the occurrence of OAM so it is not possible to say that OAM will occur at Llanbadarn Fynydd, or whether it will be noticeable to neighbouring residents. (Darran Humpheson Session 4 Statement, paragraph 5.4)
- 6.30 OAM comes from the turbine itself, rather than interaction between turbines. Responses to OAM will be directed to turbine operation, potentially by manufacturers, such as software fixes and changes to blade rotation in individual conditions. What is less of an option is switching off a turbine should OAM occur as such instances are not predictable (Session 4 AM Hearing).
- 6.31 Until such time as the IoA validates the ReUK condition, which it has not done, current good practice is not to assign an AM condition (Darran Humpheson Session 4 Statement, paragraph 6.3 and Session 4 AM Hearing).
- 6.32 Our primary submission remains that an AM condition is not warranted, due to the inadequacies of operation of conditions and the low likelihood of OAM at the site (Session 4 AM Hearing).
- 6.33 We make these comments aware of the Inspector's position that the risk of AM is such that conditions should be applied to all consented inquiry schemes (Session 4 AM Hearing). We have not replicated the evidence of others regarding the necessity of conditions, but repeat that whatever is decided will apply across all consented sites.
- 6.34 Regarding the condition wording, we adopt the concerns directed at the Denbrook formulation that requires subjective judgement to differentiate natural variation in noise

On site wind shear data

Use of an AM condition

level and OAM (Session 4 AM Hearing) and instead have suggested a preferred wording if it is resolved such a condition should be applied.

6.35 Health effects

6.36 PCC has not called evidence on any matters related to health effects. (Darran Humpheson Proof, paragraph 5.25)

6.37 With regards sleep disturbance, ETSU night time noise limits (CPL-NOI-005) reflect WHO guideline levels and should not cause health concerns. (Darran Humpheson Proof, paragraph 5.27)

Sleep disturbance

6.38 For non-stakeholder locations, the SoCG noise limits (VATT/NOISE/SOCG/SSA-C) of either 38dB or 40dB provide additional protection against sleep disturbance. (Darran Humpheson Proof, paragraph 5.28)

6.39 Recent appeal decisions such as Spaldington Airfield (CPL-INS-011 - APP/E2001/A/10/2137617) support this (Darran Humpheson XinC and Proof, paragraph 5.30) and EN3 (page 70) recites why there is no evidence that ground transmitted vibration from turbines is harmful. (XinC Matthew Cand)

6.40 In Session 4 Dr Myhill presented generic evidence suggesting links between turbines and health effects. No party cross examined Dr Myhill, but it is clear her arguments are not accepted, from written evidence and the unanimity in appeal decisions that fears over health effects are not matters afforded substantial weight in decision making. No arguments related to particular schemes or cumulative effects with other developments. Dr Myhill concluded that an AM condition should be attached to any consent granted, not that the developments should be refused because of adverse health effects.

6.41 Construction noise

6.42 Construction noise and operational noise are considered acceptable by PCC subject to appropriate planning conditions. (Darran Humpheson Proof, paragraph 2.1)

6.43 Mr Halsey's and Miss Flanders' concerns over construction noise relate to temporary impacts. With the closest turbines nearly 900m away, construction noise will not be audible all the time, at levels of 54 dB(A) during stone import and 45 dB(A) during turbine erection. There will be increases over background noise from vehicles on tracks, but these are low in comparison to other construction projects and normal traffic noise and even at 3dB, the doubling of traffic volumes is at the threshold of audibility (Darran Humpheson Proof, paragraph 5.34 and XE Darran Humpheson).

6.44 Conditions (VATT/NOISE/SOCG/SSA-C) will limit construction hours and the construction method statement will agree methods of noise and vibration control (Darran Humpheson Proof, paragraph 5.35) and noise levels from construction, which could reflect the modal

noise limits of BS5228 continuously monitored at the site boundary (XE Darran Humpheson). Miss Flanders stated she was happy in respect of emergency works if she received prior notification from PCC (XE Darran Humpheson).

6.45 Shadow flicker

- 6.46 The assessment of predicted shadow flicker shows that only T17 (866m) could be a concern, 840m being the 10x rotor diameter limit beyond which the effect is unlikely to occur. Even for properties with predicted effects, the relation of turbines to specific windows can be fixed and a strategy for specific turbine automatic shutdown designed to avoid effects (XinC Darran Humpheson).

7 HYDROLOGY

- 7.1 The hydrology Statement of Common Ground with PCC records agreement of no significant hydrological/hydrogeological effects from the development alone, subject to mitigation secured by condition. Residents can be consulted on the mitigation which may address localised variations in conditions like isolated areas of acidified water and provide for appropriate water monitoring levels (Shaun Salmon XE and Submission, paragraph 71.1.3).

- 7.2 The SOCG confirms that in-combination effects with the other SSA C wind farms are unlikely to be significant for local watercourses. Separate information concluding the same has been supplied to NRW in respect of the River Wye catchment to inform the Appropriate Assessment that will be undertaken on this issue (Shaun Salmon Submission, paragraph 1.1.4). Appropriate Assessment will be made by the decision maker and on the basis of cumulative data submitted on all of the Area C schemes. NRW has confirmed that Llanbadarn Fynydd on its own would make no significant impact to the SAC and it is believed that the Appropriate Assessment will conclude that no significant impacts are predicted from any in combination effects for Area C Schemes. (David Bell Planning Balance Statement para 4.8.3)

River Wye
SAC data

- 7.3 Concerns raised by two local residents, Mr Halsey and Miss Flanders, that private water supplies (PWSs) were not assessed partly derives from the lack of registration of water sources. However, between PCC EHO records, canvassing of residents, and AMEC interpretation of the water 'baseline' environment, assessment has been made of all sources before the inquiry (XinC Shaun Salmon).

Private water
supplies

- 7.4 A risk assessment of the PWS at Lower Foel has concluded:

Lower Foel

- (a) The spring catchment does not incorporate areas of proposed construction working;

- (b) The physical separation of the site from the supply (approximately 850m) ensures over-ground run-off would infiltrate into the site prior to reaching the supply;
- (c) The small watercourse running off the application site northwards and alongside Lower Foel, hydrologically unrelated to the PWS, would intercept any over-ground flow; and
- (d) The risk to the supply should be classified as 'none', following the methodology in the 2008 PWS Assessment (ADD/VATT/010) and ES and SEI mitigation measures (Shaun Salmon Submission, paragraph 3.1.17.4).

7.5 Mr Halsey's concerns over flood risk can be addressed through attenuation measures, and, post-construction, by dressing back construction areas with soil, secured through a detailed site drainage management plan to be produced prior to commencement of development (Shaun Salmon Submission, paragraph 3.1.2). The risk assessment relied upon the ES construction data, such as the size of foundations, but the proximity to the catchment is the determining factor for effects (ReEx Shaun Salmon).

7.6 The Applicant ought not reasonably be expected to offer "hold harmless" agreements to landowners in respect of impacts from developments. Mr Halsey suggested a form of guarantee to back the predictions of no significant hydrological impacts. This would place a burden of drafting and agreeing terms that is not justified, nor usual practice (XinC Shaun Salmon).

7.7 If a PWS was affected by this development, there are practical options for laying replacement supplies (XinC Shaun Salmon), but the evidence is that these will not be needed.

7.8 In respect of Miss Flanders' concerns over Fiddlers Green, we have addressed the potential for interference with the spring-fed Fiddlers Green Pond to the extent it is the source or contributor to the PWS (XinC Shaun Salmon). Other elements feature, including a feeder tank and a borehole (XinC Shaun Salmon). The catchment for these features has been defined (Shaun Salmon Figure 9.1), together with their proximity to Fiddlers Green and its neighbour Lower Fiddlers Green, despite initial misnaming of properties in the ES. (XE Shaun Salmon).

Fiddler's Green

7.9 Miss Flanders emphasised that the pond plays no part in her PWS, indicating the source was a spring and borehole further down the slope, in which case both have been assessed and their catchments do not extend to the C1057 (XE Shaun Salmon). Miss Flanders suggested there was too much conjecture, but no argument was made that the assessment was incorrect or the conclusions of 'no impact' wrong. Developers rely on landowner co-operation to investigate PWSs and whatever difficulties there have been

with obtaining information, it can safely be concluded there is no material risk of harm (ReEx Shaun Salmon).

- 7.10 Fiddlers Green is separated from the turbines by the C1057, the Cwm Nant-Ddu valley and higher topography, so construction and operation run-off cannot enter the PWS. The risk from runoff is therefore assessed as 'none' (Shaun Salmon Submission, paragraph 4.1.1) and no pathway for radon gas has been identified (XinC and XE Shaun Salmon).
- 7.11 The additional passing places for HGV construction traffic along the C1057 would be on the opposite side of Fiddlers Green Pond, so the potential for run-off would be mitigated by the passing place constructed with a cross-slope to direct surface water into the adjoining field. The adjoining verge would act as a potential bund to contain any run-off, and additional temporary screening used to reduce dust deposition (Shaun Salmon Submission, paragraph 4.1.2 and 4.1.3).
- 7.12 No hydrological concerns remain that should be of concern in the making of this decision.

8 PUBLIC OPINION

- 8.1 The Llanbadarn Fynydd Scheme was considered twice in evening sessions arranged for the public, specifically for Area C in October 2013 and then as part of the cumulative issues session in April 2014. There were, of course many public contributions during inquiry sessions in addition to the input of the Alliance.
- 8.2 Where specific issues were raised in respect of Llanbadarn Fynydd by the public they have been dealt with elsewhere in this closing. Similarly, where generic items were raised by the Alliance or other witnesses applicable to all projects, such as concern over health effects, these too have been dealt with elsewhere.
- 8.3 That leaves a range of matters that were raised in public meetings but without expert evidence and applicable to all sites, such as effects on house prices, health and safety considerations of turbine operation, impacts on equestrian use. This list is not intended to be exhaustive but to indicate that where such matters have been raised and have been addressed for one scheme, those answers apply equally to all schemes.
- 8.4 Beyond that there is little we can offer by commenting on the content of the public sessions, other than to respect the sincerity, depth of feeling and unfailing politeness with which those comments were made.
- 8.5 Whilst there were voices in support as well as opposition nobody could describe the sum total of those meetings as any vote for these developments but you cannot help but notice that any agenda to portray Llanbadarn Fynydd as the "worst" scheme for any reason was not reflected in those meetings. If that was the prevailing view locally or

generally you can be sure you would have heard it, but no such message has emerged from the public.

9 SOCIO-ECONOMIC IMPACTS

9.1 PCC acknowledge that given the siting of the proposals within SSAs and nature of nationally important infrastructure projects, there is insufficient evidence to support socio-economic impacts giving rise to a refusal of any of the projects. (David Bell Proof, paragraph 1.4.10)

9.2 NPS EN-1 states (para 2.1.2) that energy is vital to the economic prosperity and social well-being of the UK and that whilst EIA should consider relevant socio-economic impacts, decision makers may give limited weight to assertions not supported by evidence. (David Bell Proof, paragraph 2.2.8)

9.3 Where socio economic arguments have been raised in opposition by the Alliance, they are not argued in relation to individual schemes but to the cumulative effect of this development in Mid-Wales. The evidence that has been submitted in response addresses multiple schemes and supporting grid connections. The Moffatt Report is an example of research looking at impacts of multiple windfarm development and supporting grid (XE and ReEx David Bell Session 4) accepted as such by the Alliance (XE Jill Kibble Session 4).

9.4 The Alliance argue that a tipping point will be reached with the cumulative impacts of the developments but accept this is a statement of opinion only (XE Jill Kibble Session 4).

9.5 DECC's UK Renewable Energy Roadmap Update of November 2013 states that the UK enjoys strong levels of investment in renewables which supports a wide range of jobs and new companies. (David Bell Proof, paragraph 2.2.2 and XinC David Bell Session 4)

Economic
benefits of
development

9.6 The National Infrastructure Plan 2013 supports this type of investment in electricity generation, transmission and distribution infrastructure until 2020 that could support up to 250,000 jobs in the energy sector. (David Bell Proof, paragraph 2.2.14/16)

9.7 The May 2012 ReUK/DECC Biggar Economics research indicates that 98% of development expenditure, 45% of construction expenditure and 90% of operation of maintenance expenditure currently occurs in the UK with the wind sector contributing £198m in tax annually to the UK Exchequer including £59m in domestic rates, a significant contributor to the national economy. (David Bell Proof, paragraph 3.2.4/10)

9.8 Welsh Government's 'A Low Carbon Transition' March 2012 aims to ensure that Wales is in the best position to create jobs in supply chain opportunities and take advantage of the potential to export energy, expertise, goods and services to other nations, by having a competitive Welsh energy supply chain. (David Bell Proof, paragraph 2.3.8/12)

9.9 The Alliance argument that renewable development has a net adverse economic effect is without foundation and contrary to government policy. (XinC David Bell Session 4)

9.10 Vattenfall is experienced in advancing projects where local supply chain opportunities are maximised, such as Pen y Cymoedd. The January 2013 Regeneris 'Economic Opportunities for Wales from Future Onshore Wind Development' specifically mentions the Pen y Cymoedd scheme as allowing potential local sub-contractors to become involved in construction. It concludes that if 2,000MW of onshore wind capacity is installed by 2025, Wales may be able to secure £2.3bn of gross value added between 2012 and 2050 and over 2,000 FTE jobs per annum on average. (David Bell Proof, paragraph 2.2.3 and 3.2.40)

Applicant experience of delivering benefits

9.11 Llanbadarn Fynydd would contribute to and support national economic growth, employment creation and policy objectives. Construction over 2 years would create or retain 41 FTE jobs and other indirect employment benefits and the operational phase an estimated 2 FTE jobs. (David Bell Proof, paragraph 2.4.3 and 3.4.2/4)

9.12 The developer has committed to a community fund providing £5,000 per MW of installed capacity per annum, equating to £255k - £297k per year (index linked) and wider benefits to the Welsh economy will include income from business rates. (David Bell Proof, paragraph 3.4.14) although it is accepted the decision maker will not be taking account of the first of these, the community fund, as an economic advantage to the area or otherwise as a material consideration.

9.13 Tourism

9.14 The June 2013 Miller Report (VATT-SOCIO-010) shows the economy in SSAs B & C is similar to Powys with 6% of total employment in accommodation and food services, relatively modest, albeit important and capable of expansion. (David Bell Proof, paragraph 3.3.10)

Data on the local tourist economy

9.15 Access to services and limited transport are weaknesses of the area and whilst tourism contributes, there is a shortage of serviced accommodation, lack of identity and limited destination marketing. Diversification of agriculture is a key opportunity to increase the resilience of the economy. (David Bell Proof, paragraph 3.2.13/14)

9.16 Capitalising on the likely investment in renewables to assist opportunities is highlighted (David Bell Proof, paragraph 3.2.16). The local tourism economy is not fragile (XE David Bell Session 4) with which the Alliance agree. In contrast, questions from the Alliance over whether supply chain benefits will be felt in the locality do not evidence they won't be.

9.17 Visitors would undoubtedly note the presence of wind farms, but there is no third party evidence to indicate that the development would adversely affect visitor numbers or spend to a significant or unacceptable degree. (David Bell Proof, paragraph 4.1.3)

- 9.18 The argument that turbine views from a bedroom window would result in reduction in rental rate takes no account of other actions that accommodation provider may take to make its offering more attractive. (XE David Bell Session 4)
- 9.19 The May 2012 ReUK/DECC Biggar Economics research states there is no evidence of negative impacts on tourism and the Visit Scotland research confirms the presence of wind farms has no influence on tourists' decision making but can lead to improved path networks and tourist attractions and facilities. (David Bell Proof, paragraph 3.2.11/12)
- 9.20 The UWE Study (2004) demonstrated that the construction of Fullabrook wind farm would not have a detrimental impact on tourist numbers, experience or expenditure in North Devon. (David Bell Proof, paragraph 4.3.2)
- 9.21 The 2008 Moffat Report was cited in a 2012 submission to the Scottish Parliament's Renewable Energy Inquiry as providing a high degree of validity and reliability. It confirms that no study to date has demonstrated that adverse impacts are likely to occur. The Scottish Government is therefore satisfied that its targets for the development of tourism and renewable energy do not conflict. (David Bell Proof, paragraph 4.4.1/2)
- 9.22 The research recognises that despite Scottish tourism depending heavily on landscape, turbine development does not concern tourists or cause adverse impact upon tourism numbers, 93-99% of those who had seen a wind farm suggested the experience would not have any effect. (David Bell Proof, paragraph 4.4.10)
- 9.23 A significantly higher proportion of tourists were positively, rather than negatively disposed towards wind farms and those engaged in hiking, hill-walking, cycling and mountain-biking were more positively disposed towards wind farms than the general tourist population. (David Bell Proof, paragraph 4.4.20/21)
- 9.24 The Alliance's suggestion that any percentage of the population that is not well disposed towards windfarms would equate with a drop in tourist revenue of the same order is not a valid argument (XE David Bell Session 4). Clearly, there will always be some percentage who do not favour windfarms, however the question is put to elicit that opinion. A split of 80% pro, 20% con was accepted as being "*in the right place*" to visualise how the differing split of opinion might average out (InspQ David Bell Session 4). In response to the question, "*how should a local business be comforted over 20% of its clientele being put off visiting*" the answer is that the evidence points to no resulting drop of business, or of local accommodation providers and tourist businesses being forced to close because of nearby windfarms (InspQ David Bell Session 4).
- 9.25 This is partly because 80% represents a sizeable resource to whom continued marketing of the business can be directed and additional business secured (ReEx David Bell Session 4). The Alliance commented that local businesses cannot respond to challenges windfarms

National
research on
tourist impacts

Opposition to
windfarms not
shown to
reduce visitor
numbers

may make to their offering because they are already offering a high quality service (XE Jill Kibble Session 4). Whether or not that is so, the remaining 80% untroubled by windfarms are there for that high quality offering to be put to.

9.26 The Alliance challenge Fullabrook and Moffatt as irrelevant because North Devon and Caithness offer different tourist propositions to Mid Wales (XE David Bell Session 4). This fails to recognise the depth of research and objectivity they offer. It may be the case that the combination of The Flow Country described by David Bell and those visiting en route to Orkney or as part of doing the UK "the long way round" means that on balance there is less focus on landscape in the marketing of Caithness than in Mid Wales (InspQ David Bell Session 4).

9.27 However, contrary statistics offered by the Alliance drawn from The Scottish Mountaineering Council and John Muir Trust are drawn from bodies actively campaigning against windfarms (XE David Bell Session 4).

9.28 The Moffatt report concluded that concentrating developments rather than a dispersal of smaller wind farms over a wider area is better, as any loss of value already occurs by the presence of the first wind farm (David Bell Proof, paragraph 4.4.25). Whilst TAN 8 has a concentration policy at its core, the Alliance sought to argue that the proposals are of a different order of magnitude, because some properties would have turbines in more than 180° field of view (XE Jill Kibble Session 4). That does little to undermine the confidence drawn from Moffatt' recommendation that the TAN 8 concentration approach is the best way to look after tourism, if there is any harm to be suffered.

Concentration
of impacts

9.29 The 2011 VisitScotland Research respondents did not feel that wind farms ruin the tourism experience. (VATT-SOCIO-003 and David Bell Proof, paragraph 4.5.7)

9.30 The Economy, Energy and Tourism Committee of the Scottish Parliament inquiry findings of November 2012 demonstrate the lack of empirical evidence that tourism will be adversely affected by onshore wind. (VATT-SOCIO-011 and David Bell Proof, paragraph 4.6.3).

9.31 Particular emphasis can be put on the Moffatt Report because of the quality of its research and its endorsement by the Scottish Parliament inquiry and the May 2012 DECC Economic Impacts Report (VATT SOCIO 005 and XinC David Bell Session 4).

9.32 The Regeneris Report of February 2014, available after the close of the Session Four evidence, has been addressed by the Alliance, Celpower and RWE. Its findings are consistent with the findings of early reports, namely negligible impact on the national tourist sector and limited evidence of any local tourist impacts (Planning Balance Session).

9.33 EN-1 (para 5.12.3) sets a standard that to put substantial weight on adverse socio-economic impacts there must be evidence of them, not mere assertion (XinC David Bell

Session 4). What emerges from the Alliance evidence is a concern that there may be an adverse effect which cannot be disproved (XE Jill Kibble Session 4) but genuine and sincerely held as that concern is, it falls far short of the evidence based case that is required to meet national policy.

10 PLANNING BALANCE

- 10.1 The statutory Development Plan is a consideration which should be taken into account in the round with all other relevant considerations, even though section 38(6) of the Planning and Compulsory Purchase Act 2004 (**CD/SPM/LEG/07**) is not engaged. (David Bell Planning Balance Statement para 3.3.1 and SoCG Section 8). A full analysis of the proposals against the UDP policies have been supplied which shows the development would be consistent. (David Bell Planning Balance Statement para 4.2.49). We do not need to go beyond that in this closing as it is not argued by any party that there are any principles by which to determine acceptability found in the UDP, not otherwise found in national policy.
- 10.2 The Electricity Act 1989 (para 3(2), Schedule 9) directs the Secretary of State to the matters to which regard should be had in making this decision and these have been addressed in evidence and tested at inquiry.
- 10.3 Those material considerations we have been though at length clearly showing that on the principal areas put before the inquiry by PCC, of landscape, visual and heritage impacts, the development is entirely suitable for approval on any objective criteria. It follows that we reject PCC's legal submission that we cannot satisfy Schedule 9 as all we have done is mitigate adverse impacts as far as we can do. That is not and never has been our case. Consistently we have argued that this development is appropriately located.
- 10.4 On transport, the resolution of sTMP6 via the Mochdre removed the one matter of substance that had long held up consent. On hydrology and noise, whilst the inquiry gave the opportunity for questions from local residents, all of these have been able to be answered. Economic benefits will flow from this development and tourism will not, on the basis of objective assessment, be adversely affected to any material degree.
- 10.5 NPS EN-1 (para 1.1.1) combined with the relevant technology-specific energy NPS EN-3 provides the primary basis for this decision, carrying with it a presumption in favour of granting consent to applications for this type of development given the level and urgency of need.
- 10.6 NPS EN-1 has explicit recognition that there will be some significant adverse effects arising from developments, but what has been shown in evidence is that not only is this an appropriately located development, but where mitigation through design has been available, it has been incorporated.

- 10.7 PPW (Edition 6 February 2014, section 4.5), the latest Welsh policy, highlights that tackling climate change is a fundamental part of delivering sustainable development in Wales and (section 12.8) directs attention to TAN8 in order that development in the SSAs will contribute significantly to the Welsh Government onshore wind energy aspiration for 2GW by 2015/17. This new national planning policy re-validates the currency of TAN8 and so it should continue to attract significant weight.
- 10.8 TAN 8's objectives including 800MW of installed onshore wind by 2010 have not been met, and its indicative capacities should not, and need not be seen as a 'straightjacket'.
- 10.9 The merits of each application are the starting point and should be the decisive consideration. If impacts are acceptable, any finite capacity of an SSA is being respected and the underlying concerns of WG Ministers will have been met. In that way there is no inherent contradiction between the letters from WG and policy to be applied here and no need to disregard the concerns expressed in those letters.
- 10.10 Similarly, the concern expressed over grid in those letters is met in there being no inevitability of 400kV lines being developed as a result of this scheme being approved.
- 10.11 Whilst policy provides that in the event of conflict with development plan documents, the NPS documents are to prevail, there are no significant conflicts. Approving this development will be consistent with local and national planning policy.
- 10.12 There never was substance to Llanbadarn Fynydd being a scheme that should be refused, for any reason, less still that it should be seen as weaker than other proposals. This inquiry has demonstrated the sites acceptability in depth and accordingly we respectfully ask that the approval is granted.

Patrick Robinson

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30th May 2014