

Hearing Session 15

Representor ID: 6727

May 2017

Question 3. In respect of renewable energy policies and proposals. Has the Plan been prepared in accordance with the necessary procedural requirements?

Question 3 a): Has the Plan been prepared in accordance with the Delivery Agreement, including the Community Involvement Scheme?

No. Non-compliance with the Delivery Agreement and Community Involvement Scheme has been deeply undemocratic. Powys residents have been denied opportunity to contribute their own ideas and suggestions and are reduced to looking at issues of soundness of the plan only. This is contrary to:

1. Stage 4, Pre-Deposit Consultation (Regulations 15/16)

The Delivery Agreement, (p.18) states *'The Council is committed to involvement from the very earliest stages of the LDP preparation. It is important that people know how to get involved and the times when their views can influence the plan'*.

Consultation on the proposed Renewable Energy proposals was not undertaken at the Pre-Deposit stage of the LDP development. Therefore the plan has not been prepared in accordance with the Delivery Agreement and the Community Involvement Scheme because there was no opportunity for community involvement to influence the proposed renewable energy proposals.

2. Stakeholder Identification

The Delivery Agreement (p. 22) says, *'Powys Citizens Panel consists of around 1,000 residents who have volunteered to be contacted to take part in a range of consultation exercises. The Panel was established in 2001 and refreshed in 2008 to help ensure it continues to be representative of the people of Powys and that those on the Panel represent a broad spectrum of citizen views'*.

The Delivery Agreement, Revised February 2015 (p. 59) states, *'The Citizens Panel has been removed from the list of community stakeholders in Appendix 4 of the DA. Powys LDP'*

The citizen's voice has been removed from the stakeholder list with no explanatory note despite recognition by the council that it represented a broad spectrum of citizen views and contrary to the aims of the Community Involvement Scheme.

The Delivery Agreement (p. 20) defines stakeholders; *'Stakeholders are those whose interests are directly affected by the LDP'*. The REA, May 2017, Appendix G (p. 124) identifies attendees of a stakeholder meeting as 5 Council officials, 1 person from the Carbon Trust and 2 people from AECOM. It is unclear why AECOM attended this meeting as stakeholders, they are not included in the Delivery Plan list and could be construed as a conflict of interest. The inclusion of AECOM as stakeholders whilst excluding the Citizens Panel is of concern.

Question 3d): Has the Plan had regard to the requirements of the Well-being of Future Generations (Wales) Act 2015?

The approach to Well-being of Future Generations (Wales) Act 2015 is set out in a number of LDP documents:

1. (ED020) 'The Planning Act 2015' says:

This advice from the Welsh Government says; "The implication of this is that all LDPs being prepared and still subject to either adoption or approval, should take into account the above provisions set out in the Well-being of Future Generations (Wales) Act 2015. This would include the definition of sustainable development and the well-being goals.....However, the Planning (Wales) Act 2015 (Commencement No. 2 and Transitional and Saving Provisions) Order 2015, specifically section 6, states: "Sections 2 and 11(3) of the 2015 Act (Planning (Wales) Act 2015) do not apply to a local development plan that has been submitted for examination in accordance with Part 6 of the 2004 Act when the sections come into force. The sections apply to such a plan after it is adopted or approved in accordance with Part 6 of the 2004 Act."

This mis-match between the Well-being of Future Generations (Wales) Act 2015 and Part 6 of the 2004 Act appears to be an unintentional anomaly because it makes no sense to develop the LDP in a manner which is non-compliant with Well-being of Future Generations (Wales) Act 2015 if it must be compliant immediately it is approved/adopted. Although other commencement orders are easily available, the Planning (Wales) Act 2015 (Commencement No. 2 and Transitional and Saving Provisions) Order 2015, specifically section 6, is proving elusive and this response has been drafted without sight of it.

This stance does not demonstrate a regard and commitment for the well-being of the people of Powys.

A common sense approach should prevail and the plan ought to be compliant with the requirements of Well-being of Future Generations (Wales) especially the Renewable Energy Policy which was rewritten in May 2017 over a year after the Well-being of Future Generations (Wales) Act 2015 came into force, it appears disingenuous to try and avoid compliance with the Act in this way.

This approach is not sound because it would compromise implementation of the Well-being of Future Generations (Wales) Act 2015.

Question 4. Does Policy RE1 provide an appropriate policy framework for realising the area's potential for renewable energy generation?

Question 4b): Has the policy been informed by robust and credible evidence, particularly in relation to the defined local search areas (wind and solar) and the renewable electricity contribution (Table RE1)?

1. Local search areas - inconsistency between REA and Policy RE1 – Renewable Energy

The Position Statement, May 2017 says, *'In accordance with the evidence, solar PV technologies will be the primary strategy for delivering renewable energy generation in the Powys LDP area'*.

The AECOM REA (p. 24) outcome for Wind energy says; *'There are no remaining least constrained land parcels of sufficient area to identify wind LSAs for local authority wide schemes of installed capacity range 5- 25MW. There are no LSAs identified'*.

In the Position Statement' (p. 7). this unequivocal outcome somehow becomes *'it has not been possible to define Local Search Areas for onshore wind technologies in the range 5- 25MW for Local Authority-wide scale developments, although the Council recognise that varying the assumptions could increase or decrease the availability of least constrained land parcels'*.

This in turn goes forward into a revised RE1 Policy and the Position Statement (p.12 & A6) sets out:

'Wind development will be permitted subject to the following criteria for wind energy development greater than 5 MW:

- I. Wind energy proposals (greater than 25MW) will be directed to appropriate locations within the boundaries of the Strategic Search Areas (SSAs).*
- II. Wind energy proposals (10 – 25 MW) will only be permitted in appropriate locations and where they are in the national interest for meeting energy contributions.*
- III. iii. Wind energy proposals (5 – 10 MW) will only be permitted in appropriate locations.*

This policy does not reflect the evidence in the REA (p.24) and conveys an intention to adjust assumptions in order allow future wind development to proceed unhindered by constraints after the LDP has been adopted. The wording of the policy is in conflict with the outcome of the REA which clearly states there are *'no remaining least constrained parcels of land'*.

In line with the REA outcome the RE1 Policy should simply state wind development of 5MW and above will only be permitted within the SSA's areas. There may be need to identify micro wind generation for on-site use within the policy.

2. Buffer zone/separation distances – not evidence based

Buffer distances for wind and solar developments are not evidence based, the noise buffer for onshore wind is of particular concern. Wales has not reviewed the separation distances since they were set out in TAN 8, based on the sizes of turbines in 2005 and they proved inadequate even then. Scotland sets a 2km buffer and England no longer supports onshore wind development.

Turbine size has increased to unimaginable industrial proportions over recent years and in doing so the sound profile they emit constitutes much greater low frequency noise and infra sound, neither of which is addressed within the ETSU-R-97 assessment. EtSU-R-97 is not compliant with WHO guidelines.

NASA research

The detrimental health effects of exposure low frequency noise (LFN) and infra sound have been known for over 30 years. The NASA research, *Guide to the Evaluation of Human Exposure to Noise from Large Wind Turbines*¹ revealed that even with windows shut, houses do not stop LFN sound energy. Measured levels inside the home are significantly higher than predicted within the LFN range, the house acts like a drum for LFN and generated many complaints especially because the noise levels were higher inside the homes than outside. Susceptible people experience a range of symptoms including motion-sickness-like symptoms.

In 1987 the Wind industry was told that dB(A) was unsuitable to measure LFN emissions from wind turbines.

World Health Organisation research

The World Health Organization² advises that: *“Health effects due to low-frequency components in noise are estimated to be more severe than for community noises in general...The evidence on low-frequency noise is sufficiently strong to warrant immediate concern.” and consequently “Noise with low-frequency components require lower guideline values’.*

Despite this there has been much resistance to the measurement of low frequency noise from the Wind Industry because it would result in much larger setbacks as LFN is not easily attenuated and travels much greater distances. Evidence from a Freedom of Information

¹ <https://www.windturbinesyndrome.com/wp-content/uploads/2012/11/NASA-study-of-wind-turbine-noise-1982-from-Owen-Black.pdf>

² http://www.euro.who.int/data/assets/pdf_file/0017/43316/E92845.pdf
<https://infrastructure.planninginspectorate.gov.uk/document/2322958>

request³ shows an example of suppression of a recommendation to tighten current noise regulations on wind turbines in order to protect residents from noise.

³ [http://www.denbrookvalley.co.uk/files/FOI+Commentary +HMP+Draft+Reports+-7+Dec+09-2.pdf](http://www.denbrookvalley.co.uk/files/FOI+Commentary+%HMP+Draft+Reports+-7+Dec+09-2.pdf)

Public Health Wales

The Public Health Wales Website states: *'With more and more wind turbines being sited in Wales, there is a need to consider the associated public health implications. Despite reports from Local Authorities that wind turbines are generally compliant with current guidelines, noise related complaints from residents living near turbines continue to be received'*. It is therefore evident that wind turbine noise is a known problem in Wales.

Evidence from currently operating turbines in Powys

Powys County Council holds no evidence from the monitoring or evaluation of the impacts upon health and well-being of currently operating wind turbines specifically:

- The Powys Well-being assessment states: *'There has been no research on the specific location of renewable installations within Powys, the data provided is only based on a Powys wide dataset. Extensive work has been undertaken as part of the Local Development Plan (LDP) 20112016 process to identify the best locations for renewable technology, however this data is for future installations and not existing'*, (Well-being Assessment 2017, Environment Key Findings).

A recent Freedom of Information request to Powys Local Authority revealed:

- There have been numerous complaints about noise from wind turbines in Powys, supporting the fact that ETSU-R-97 is not fit for purpose.
- Complaints about low frequency noise are not separately identified.
- There is no record as to whether the noise complaint has been resolved to the complainant's satisfaction.

In terms of efforts to understand turbine noise problems in the County and in order to prevent further/future turbine noise issues it is reported that:

- It is not routine require noise raw data (to ensure its compliance with regulations) in support of noise prediction reports in turbine applications.
- The cumulative data from all complaints about noise from wind turbines is not routinely collated to identify trends and factors common these noise complaints e.g. turbine make/model, topography, verification of distance from residential properties pre decision, raw data supplied by applicant etc.
- Development management/Planning Committee are not made aware of the incidence of complaints about noise from wind turbines.

Powys Local Authority is not monitoring the health and well-being effects of wind turbines on its residents and despite approving industrial size turbines with their consequent increased low frequency noise and infra sound emissions I have been advised personally that the Authority cannot afford the equipment to scientifically measure for such noise.

The Authority seems to be unaware of the number of people who are already suffering the effects of wind turbine noise (of any description) and who are now suffering health issues and are worried about their future health and well-being even to the point of leaving their home. Without this evidence it is difficult to understand how the Authority can expand on-shore wind development on a robust evidence base that best protects the health and well-being of residents.

UK report on separation distances

In the UK report on separation distances in 2008 (p. 4) the Environment Minister states *“The separation distances between wind turbines and residential properties can be examined as part of the refinement work by local planning authorities and on a case-by-case basis, taking into account topography and orientation, when decisions on planning applications are taken”*.

Powys Local Authority needs to develop a comprehensive evidence base in order to achieve the above, the 500m buffer zone is not in itself evidence based and separation distances must be assessed in context, including topography, orientation, and turbine size and low frequency emissions this is especially important given the topography of Powys. The precautionary principle must apply, to argue that the sleep disturbance, physiological stress and vestibular dysfunction symptoms and their serious long term adverse health consequences don't exist or are caused by scaremongering is neither scientifically correct, nor morally or ethically defensible.

3. Landscape Sensitivity Assessment for Solar – flawed methodology

The Enplan, Landscape Sensitivity Study for Solar Farm Development (p. 3) says, *‘There is currently no published methodology for specifically evaluating landscape sensitivity of solar developments’*. Additionally the Study (p. 9) identifies,

- *‘The Toolkit does not provide a methodology for a process of refining the renewable energy assessment output through landscape analysis. However, AECOM 2016 suggests that an exercise could be undertaken using the ‘High’ and ‘Outstanding’ values attributed to the ‘Character & Scenic Quality’ column of the Visual & Sensory Aspect 12 Facilitating Planning for renewable Energy in Wales: Meeting the Target, 2004, ARUP Area layer, although it stops short of proposing how such categories might be treated within a refinement process’*.
- *‘NRW have **informally indicated** through preliminary discussions in preparing this methodology that four of these are the “main drivers” in determining landscape value’*
- (p. 8) *‘TAN8 itself is silent on the considerations for solar farms as it envisages only domestic and very small-scale commercial uses’*.

The above suggests a ‘make it up as you go along’ approach to the methodology which raises the question as to how any out-comes of this assessment can be either credible or robust.

Many of the issues which plagued the identification of LSA's for onshore wind appear to have been repeated in the identification of LSA's for solar energy, for example the REA (p.42) says, *'Boundaries have been drawn "tight" to clusters of least constrained land parcels so some "outliers" have been excluded but it may be possible to draw them into refined initial LSA'*.

S17 the largest proposed solar LSA. shows small scattered areas of resource surrounded by a very large envelope see RE1-Maps (p. 31). The Enplan Sensitivity Assessment (p. 29) identifies the S17 as having *'Potential for large-scale solar development of (up to 50MW) away from the northern fringe, valley sides and plateau edge'.....There is potential across much of the LSA but excluding the northern fringe, due to their high intrinsic value, open moorland.'*

This has not been translated into the Powys REA 2017 – Maps (p. 31) where the whole of the northern fringe of S17 is identified as resource, if the northern fringe was removed, as it should be according to the Enplan Assessment, the proposed LSA area would reduce in size by half, even then the remaining envelope could not be described as tight.

The Enplan Assessment (p. 4.) says, *'In addition to the issue of amenity, Open Access Land in Powys is generally open moorland located on the hills, ridges and plateau of the county's highest landscapes and, in the round, usually has specific landscape characteristics which may be more susceptible to harm from solar development than other more settled landscapes. Consequently Open Access Land can indicate higher levels of landscape sensitivity'*.

The large envelope of S17 contains large areas of common land, CROW Access land, open country, ancient woodland and Glyndwrs Way. In addition it is entirely within restricted airspace, these areas should be removed from the LSA 17 envelope.

Cumulative issues are overwhelming Central Powys, this is obvious when S17 is superimposed on map W2.2 Central Powys (p. 31), it fits like the piece of a jigsaw between the Newtown South Wind SSA and the large sprawling Llandinam Wind Farm. Interestingly S17 is interchangeable with the wind LSA which has now been removed. It is inconceivable the landscape and natural environment could accommodate yet another large scale technology.

The Natural England Technical Information Note TIN 101 lays out the Landscape character factors required to maximise the benefits of solar parks (p. 6), The Powys landscape falls under the assessment criteria 'Reduced chance that solar parks can be accommodated in the landscape for every single factor.

Fundamentally the Powys Landscape is unsuitable for largescale wind and solar energy development and efforts to try and make the evidence show the opposite has resulted in the presentation of assumptions as fact, this Renewable Energy Policy is not based on credible or robust evidence.

Powys Local Authority needs to abandon this aggressive policy for large scale renewable energy development outside of SSA's and focus on re-engaging with citizens to develop a micro renewable energy policy, solar panels on roofs, farm buildings, chicken sheds, hydro power and wind for on-site use. How many roof tops would it take to generate 61MW?

Question 4c): Does the policy provide a clear and consistent framework for assessing development proposals.

No, for the reasons outline above, the policy is not evidenced based.

Question 5. Does the Plan provide an appropriate balance between realising the areas potential for renewable energy production and the protection of the landscape, natural and historic environment of Powys.

The LDP lacks clarity, there is no definitive map showing how the proposed solar LSA's sit with existing wind farms, single turbines, biomass installations and grid connections.

The balance in Central Powys particularly is inappropriate, the insertion of large solar LSA's into the area which already supports the largest SSA's for wind and large wind farms produces is hugely disproportionate and damaging to the landscape, historic environment of Powys and biodiversity. The plan does not provide an appropriate balance, renewable energy production has been prioritised over the landscape and everything living in it.

End

Inc. Supporting Documents

1. A Proposed Metric for Assessing the Potential of Community Annoyance from Wind Turbine Low Frequency Noise Emissions. *N.D Kelly (1987)*
2. Wind Turbine Noise Impact Assessment, Where ETSU is Silent. *Richard Cox, David Unwin, Trevor Sherman (2012)*
3. How Does Wind Turbine Noise Affect People? *Alec N Salt, Jeffery T. Lichtenhan (2014)*
4. Map showing Central Powys cumulative effects of proposed solar LSA S17 and existing/ proposed wind development.

5. Solar Parks: Maximising Environmental Benefits: *Natural England Information Note TIN101KJL'*