

Environment and Sustainability Committee
Inquiry into Energy Policy and Planning in Wales
EPP 316 – Gary Swaine

22nd September 2011

Clerk of the Committee
Environment and Sustainability Committee
Cardiff Bay
CF99 1NA

Dear Sir/Madam,

Please find my submission to the Environment and sustainability committee.

An acknowledgement of my submission would be appreciated.

I have noticed there is no date set for the committee to publish its findings would you please advise and keep me informed on this matter.

I would be willing to come and give oral evidence to the committee.

Yours faithfully

Gary Swaine

We have environment and energy issues and welcome a full and open debate regarding these issues

1. Introduction

I am the director of a successful plant nursery, despite competition from foreign imports we have weathered the recession very well. We supply plants all over the UK. In our sector we are the biggest in Wales.

I am extremely concerned about the merits of the current energy policy in Wales. I am confident that on balance the policy that stands currently will be detrimental to businesses as a whole.

2. Policy

Wales needs to re-order energy policy putting energy security first, affordability second and environmentally clean energy third.

2.1 The current energy policy framework does not place enough emphasis on energy security

Of critical importance to the existing framework is the EU which has placed a much bigger burden on the UK than on other EU states with an unachievable renewables target by 2020 and the premature closing of coal-fired plants not compliant with the Large Combustion Plant Directive

Too much government support is focused on expensive and still quite experimental clean energy technologies that cannot provide large quantities of scaleable, secure, predictable and dispatchable power – solar, wind, tidal stream and to some extent coal fitted with carbon capture and storage

And virtually none too to those that can – large hydro, Severn tidal barrage / tidal lagoons, nuclear.

Wales needs less energy policy, a lot more focus and a long-term framework to deliver 100% secure and decarbonised electricity by 2060 – a Clean and Secure Energy Obligation

Modeled on the existing Renewables Obligation it will have a much lower buyout price but a much longer guaranteed market into the future – critical to lowering the cost of capital and pricing in capital intensive big impact, long-term solutions

A clean and secure points system to be established for differing technologies and what they can contribute to the UK's electricity supply to harness a competitive, evolutionarily flexible system that for the first time gives a rating to energy security.

2.2 PPW 4.3.1 '*Using scientific knowledge to aid decision making*' . No such thing as renewable it suggests everlasting perpetual motion the holy grail of science a recent article from the New scientist says we only have a limited amount of resources in the entire solar system and renewable energy is extracting this energy which will be to catastrophic for our environment. (*New Scientist 2-04-11*)

2.3 The onshore wind energy policy as been promoted by Renewable UK formally the British wind energy association. Initially they promoted wind energy as having a load

factor of 50% that has been downgraded to 30%, but with the latest figures showing the load factor for onshore wind in Wales to be around 20%'s and no mention of the power they consume when idle, this will have dramatic implications energy they could produce and the CO2 that they may save. In fact The amount of carbon they save has also been downgraded from 0.86tonne CO2/Mwh to 0.43tonne CO2/Mwh and with coal fired power stations being decommissioned this figure will be on the high end of the scale.

2.4 Planning policy Wales (PPW) 3.1.8 "*When determining planning applications local planning authorities must take into account any relevant view on planning matters expressed by neighbouring occupiers, local residents and any other third parties. While the substance of local views must be considered, the duty is to decide each case on its planning merits. The Courts have held that perceived fears of the public are a material planning consideration that should be taken into account in determining whether a proposed development would affect the amenity of an area and could amount to a good reason for a refusal of planning permission.*"

2.5 I understand this statement in PPW as if the people of Wales do not want huge on shore wind farms and associated infrastructure then PPW will support this view.

2.6 Renewable UK argue that onshore wind is nearly as cost effective as conventional power generation, in these financially straighten times, does it need to be subsidized?

3. CO2

3.1 The UK currently produces around 500Mt(million tons) per annum from a global 30Bt(Billion tons) DECC.

China's emissions totalled 7711Mt in 2009 25% of the worlds emissions which has increased by 170% since 2000 in line with a 9-10% increase in GDP, year on year. The national target in the UK is a 20% reduction of CO2 based on 1990 levels by 2020. At the end of 2009 the UK had reduced its carbon footprint by 19% (DECC).

3.2 Wales's reduction of CO2 gases was 23% in 2009. Emissions totalled 42.6Mt of CO2 (WAG). This is 8.2% of the UK emissions and 0.14% of the worlds CO2 A reduction of 3% of CO2 per year over the next 10years would reduce the CO2 savings to 6.2% of the UK emissions and 0.12% of the worlds CO2.

3.3 In fact as wind turbines only generate electricity for 75-80% of the time the remaining 20% of the time they are consuming electricity around 70Kw for a 3Mw machine (*Vestas V90 General Specification p34*) this must be taken into account when assessing possible CO2 savings. In fact the central range of 13Gw of onshore wind by 2020(*UK renewable energy roadmap*) would suggest a power consumption for the whole on shore fleet at around 300Mw- the size of a small gas fired power station.

3.4 Back-up will be required to be running all the time CCGT(combined Cycle Gas Turbine) these are 60%+ efficient and produce 340-400kgCO2/Mwh. OCGT(Open cycle gas turbines) can be switched on and off but the produce around 575kgCO2/Mwh and are 35% efficient and therefore cost roughly double to run.
(www.estap.org)

3.5 These facts must be taken into account when deciding how much CO2 is saved by Wind Turbines.

4. Economic

4.1 Cost

'Third, we will ensure that this transition to low carbon maximizes the economic renewal opportunities for practical jobs and skills, strengthens and engages our research and development sectors, promotes personal and community engagement and helps to tackle deprivation and improve quality of life.' *Low carbon revolution The welsh assembly government energy policy statement p5*

4.2 Stuart Young consulting(*March 2011*) studied wind power generation over 3 year period in Scotland and came up with the following results, please bear in mind that Scotland's wind resource is greater than that of Wales.

During the study period, wind generation was:

- **below 20% of capacity more than half the time.**
- **below 10% of capacity over one third of the time.**
- **below 2.5% capacity for the equivalent of one day in twelve.**
- **below 1.25% capacity for the equivalent of just under one day a month.**

The discovery that for one third of the time wind output was less than 10% of capacity, and often significantly less than 10%, was an unexpected result of the analysis.

4.3 Wind Power stations have the net effect of transferring money from the poor to the rich. (*Sunday Telegraph 21-08-2011*)

4.4 A few landowners and the power companies benefit from the installation of wind farms, whereas the vast majority of the population pay. There is no community benefit for the people who have to suffer the intrusion of huge steel pylons.

4.5 The cost of the 'free' electricity generated by the wind power stations is an extra 4.8p/Kwh on top of the normal unit price, this renewable policy it is estimated to cost the UK £6.5-9Bn per year by 2020. This is money paid by the consumer to the landowners and electrical companies. The wind turbine manufacturers are generally foreign so virtually no financial benefit to Wales general economy. *Foreign firms reap £500m a year in subsidies from UK wind farms Sunday Telegraph 18-9-2011*

4.6 Whilst it will force up electrical prices and increase the cost of goods increasing inflation it will also reduce the amount of money that the average house hold has to spend in the general economy in July 2011 DECC survey showed 5.5million homes currently are suffering fuel poverty.

4.7 Gas fired power stations want subsidies to construct and produce power, as they will not be generating enough revenues as priority is given to renewable generation. Document energy department has been warned without massive

back up : <http://www.thisismoney.co.uk/money/article-2008055/Energy-giants-want-billions-windfarms.html#ixzz1XuNiQ88M>

- 4.8 This can only increase the incidence of fuel poverty and have an detrimental effect on the economy as an whole (*Dr J Hughes Professor of economics Edinburgh university*)http://www.thegwpf.org/images/stories/gwpf-reports/hughes-green_jobs.pdf
- 4.9 For security of supply of the electricity system that underpins our society you need an reliable energy source that can be called upon 24/7, it would seem bazaar to invest in a system that does not produce this security of supply(http://www.bmreports.com/bsp/bsp_home.htm) 1-09-2011
- 4.10 Onshore wind power is proving to be not as effective as originally put forward by the wind power companies, and will not generate anywhere near enough energy as we require. The land would have to be completely covered in wind turbines. In his book sustainability without hot air Professor David Mackay suggest we just have not got the land to produce the power we need.
- 4.11 Constraint payments for switching off wind turbines will add additional costs to electric bills (<http://breakingnews.heraldscotland.com/breaking-news/?mode=article&site=hs&id=N0215511304251519691A>) and(<http://www.telegraph.co.uk/earth/energy/windpower/8770937/Wind-farm-paid-1.2-million-to-produce-no-electricity.html>)
- 4.12 There are also additional indirect costs incurred by the consumer by National Grid – a regulated monopoly – in order to market the investments to integrate additional gigawatts of intermittent power, often in new locations far from the main population hubs.
- 4.13 The national grid has alluded to the problem that supplying gas to power stations that are constantly being switched on and off to satisfy the power delivery of wind turbines will cause problems for the pipe work supplying the gas, they will not be able to cope with the constant pressure fluctuations. The implications of which would mean a further burden of cost to the consumer. (*Professor Micheal Laughton FREng University of London*)

5. Employment

- 5.1. In the period april 2002 to march 2010 the UK spent £5.6bn subsidising dedicated renewable electricity plant, at a cost of £200,000 per industry worker. Subsidy per wind industry worker in the year april 2009 to march 2010 amounted to £57,000 which is greatly in excess of the public (£29,000) or the private (£25,000). While it is not yet possible to estimate the net employment impacts of such costs, they seem unlikely to be positive. (*John Constable The Green Mirage*)

- 5.2 A study last year by the Jan Carlos University came to the conclusion that for every ‘green’ job that was created there would be a net loss of at least 2.2 jobs ie for every 4 jobs created there would be a loss of 9 jobs in the general economy.
(*Study of the effects on employment of public aid to renewable energy sources- Jan Carlos University 2009*)

6. Renewable Obligation Certificate (ROC)

In the UK we require around 60Gw of power at peak demand and around 35Gw base load, the load on the system that is always there. Wind generation is unable to provide this base load because of its intermittent nature, the remaining 25-30Gw of power we require at peak times. This is also unable to be provided reliably by wind as the peak demand may occur when there is a low output from wind generation. The ROC subsidy was introduced to encourage renewable deployment; as a consequence a wind turbine generates more in subsidies than in actual energy produced. I believe that renewable deployment should be encouraged but the ROC should be adjusted so the payments are based not solely on the power produced but an emphasis given to when the power is produced. This would encourage renewables that provide security of supply and power when it is required. This view is endorsed by Low carbon revolution the welsh assembly government energy policy statement Annex 5
'Energy security of supply – since without this our civilisation is at risk'

6. Tourism

Through our Sustainable Tourism Framework, we will ensure that tourism maintains and strengthens the quality of life in local communities, through engaging and empowering local communities in planning and decision-making. We will aim to maximize the contribution of tourism to the sustainable economic prosperity of the host destination, including the proportion of visitor spending that is retained locally (one Wales p 64)

PPW 11.1.7 *'In rural areas, tourism related development is an essential element in providing for a healthy, diverse, local and national economy.'*

6.1 Mid Wales is unique as it is sandwiched between 2 national parks and because of this unique situation studies done on the impact of wind farms in other areas of the country cannot be applied to mid Wales. Being sandwiched by the national parks has concentrated the numbers of holiday and touring parks in mid Wales. The value of this is £650m per year and employs around 6500 people (*mid Wales tourist board*), or just over 10% of the population. It provides local jobs for local people. This figure is considerably more than Breconshire at £170m(*PCC STEAM report*). This is good thriving business, an asset to the Welsh economy.

6.2 The British holiday & home parks association were extremely concerned regarding the scale and intensity of the proposed development.

'Intensive development of an industrial nature in countryside that is attractive to holidaymakers will impact on the economic, social and environmental contribution of Holiday and Touring Parks. This contribution may not be fully recognised and it is important that the detrimental impact is taken into consideration alongside any benefit anticipated from a development proposal.' 'The attractions of the countryside are the single most important driver in bringing park customers to any area. 81% of park customers enjoy walking, 61% spending time in the countryside, 29% watching wildlife. Any development of an intense, industrial nature, which blights the very rural aspect of the countryside, will therefore greatly reduce the attractiveness of a park and a region to tourists. Therefore, any impact assessment considering proposals

for development needs to take account of the loss of parks' very real contribution to the local economy and community. (*Report R Rhodes Attached*)

6.3 The country landowners and business association (CLA) response to the national grid on mid Wales

' The options paper shows a clear preference for option 2, with an estimated overhead transmission capital cost of £178m, or an underground cost of £562m. This is a difference of £384m, which at 15 years purchase represents an additional cost of £8.50 per head of the population of Wales. However, the power generated by the wind turbines will largely be exported from Wales so it would be inappropriate to load the whole of this cost on the Principality.

The CLA go on to say Treasury Guidance should be adopted. The Green Book³ at Annex 2 states clearly "***The valuation of non-market impacts is a challenging but important element of appraisal, and should be attempted wherever feasible.***"

Page 6 of the CLA report refers to a survey conducted by the Welsh tourist board in October 2003 48% of visitors would find pylons detract from their experience with a further 23% would also find wind farms detracting from their experience. Please note that in 2003 the tallest wind turbines were around 60m tall, whereas now we have proposed 180m tall. Therefore one can only conclude these huge turbines would have significant increase in the people finding they detracted from their experience.' (*COUNTRY LAND AND BUSINESS ASSOCIATION RESPONSE TO NATIONAL GRID THE UNDERGROUNDING OF ELECTRICITY TRANSMISSION*)

6.4 The Welsh tourist board 'explore mid Wales and the Brecon Beacons pages 10,11 shows various walks across mid Wales Glyndwr's way and Offa's dyke to name but 2 These ancient walks of national and international importance will be littered with pylons and turbines. Page 2 of the brochure shows a stunning picture of lake vyrnwy I doubt this picture would be considered if 606ft turbines are placed on the hills in the picture.

7. Landscape & Environment

We wish to see the historic environment well protected, enjoyed and valued by the people of Wales. We want to see fewer historic buildings and sites 'at risk', with more heritage assets in stable or improving condition. We will continue to consider heritage assets for protection and promote the historic environment as a strand of regeneration and sustainable development, by promoting best practice in urban and landscape characterization and the reuse of redundant historic buildings. We will also expand our advice and policy guidance and target grants to promote sustainable conservation and heritage-led regeneration.

Through our Strategic Capital Investment Fund, we will fund improved access and presentation of historic sites to stimulate local pride and cultural tourism, as part of our Welsh Cultural Heritage Initiative. Page 71 'one Wales'

7.1 Hidden value of nature revealed in groundbreaking study

The true value of nature can be shown for the very first time thanks to groundbreaking research by hundreds of UK scientists.

The research forms the basis of a major new independent report – the UK National Ecosystem Assessment (UK NEA) –, which reveals that nature is worth billions of pounds to the UK economy. The report strengthens the arguments for protecting and enhancing the environment and will be used by the government to direct policy in future.

- The benefits that inland wetlands bring to water quality are worth up to £1.5billion per year to the UK;
- Pollinators are worth £430million per year to British agriculture;
- The amenity benefits of living close to rivers, coasts and other wetlands is worth up to £1.3billion per year to the UK; and
- The health benefits of living with a view of a green space are worth up to £300 per person per year.

Source <http://www.defra.gov.uk/news/2011/06/02/hidden-value-of-nature-revealed>

7.2 Mid Wales landscape is of stunning beauty, this is indisputable as it was considered in the early 1970's for national park status.

7.3 Wales' historic landscapes have been preserved, and we have learnt lessons from our past which inform our future management (*One Wales page 7*)

8. Tan 8

Under Section 40(1) of the Natural Environment and Rural Communities Act 2006 (the NERC Act), the Assembly Government and other public authorities have a duty to have regard to the purpose of conserving biodiversity. When we report on the achievement of actions under this Scheme, we will include a statement on how this duty has been met by the Assembly Government.

We will continue to ensure that all our plans and projects are fully compliant with the requirements of the *EU Directives on Wild Birds (79/409/EEC) and Habitats (92/43/EEC)* and contribute to the *UN Convention on Biological Diversity*. We will ensure that appropriate assessments are carried out under the Habitats Regulations (as amended 2009) for any plans or projects that may affect internationally protected sites. All plans or projects will aim to deliver biodiversity gains under the NERC biodiversity duty.

We will continue to ensure that all our plans and programmes are fully compliant with the requirements of the *EU Directive on the Assessment of the Effects of Certain Plans and Programmes on the Environment (2001/42/EC)* (the Strategic Environmental Assessment (SEA) Directive), and we will promote best practice in the use of SEA. (*One Wales p31*)

Tan8 2.5 '*There may be practical, technical and or environmental reasons why the capacity may be more or less than that indicated'*

8.1 Tan8 has had no assessment done on its impact on the environment. Which would seem to be in contradiction of policy set out in the 2 statements above.

8.2 Recently in Scotland the local authority of Alchany wind farm, near Lairg has forced Scottish and Southern Electricity to shut down a Sutherland wind farm after

the company breached planning controls by failing to deal with excessive noise from the development, to properties over 2Km away

8.3 Monday 22 May 2006

The week aims to raise awareness of how noise – whether it's noisy neighbours, construction sites or even children playing - can have an impact on people's quality of life.

Carwyn Jones said: "I am not saying that people can't make any noise but everyone must consider others and think about how their actions can impact on other people. "Noise Action Week promotes simple ways in which we can avoid noise, and deal with noise makers.

"This can be as simple as turning down your TV, or entertainment system, or considering when the best time would be to do some DIY at home or to cut the grass.

" If you are planning a celebration you could also consider letting your neighbours know in advance. These simple actions can make a big difference.

"Councils do have the power to take action against those who consistently make noise, but I hope that would be the last resort. In some cases, a quiet word with a neighbour may solve the problem." - Carwyn Jones

8.4 The only assessment of wind turbine generated noise is based on a 14year old study(ETSUR1997) that requires the turbine manufactures to supply their own data for the environmental impact assesment and when wind turbine were significantly smaller than today. From the statement above the first minister is aware the impact of noise can have the quality of life, but yet TAN8 recommends distance of 500m from turbines to residensal properties but goes on to advise that this could altered ie lowered. The house of lords are currently trying to address this. It would mean in mid wales that several proposed wind farms would have to be over 3km from a dwelling due to the huge height of the turbines.

8.5 When TAN8 was drafted there was an presumption that within the tan8 SSA's there would be a change in landscape character to that of a wind turbine landscape. This was based on the assumption that the turbines would be 110m tall. We now have the prospect of 184m high turbines. Some of the proposed wind farms are close to the national parks and therefore would be clearly visable.

8.6 'providing information to assist decisions as to the effects on local wildlife and habitats and impacts of visibility from the coast (especially if the farms are less than 12 nautical miles offshore)'; *Low carbon revolution The welsh assembly government energy policy statement p13*

Why is this principle not applied to the National Parks?

8.7 Why does the coastline get a 15mile (12 nautical miles offshore) buffer distance from wind farms but people living within the SSA's only get 500m?

8.8 Tan8 3.6 Annex D 'opportunities explored for the phasing and development of wind turbines in and around forestry clearance operations' Does this include the clear felling of immature forestry to site turbines, it is estimated that around 1000 rugby pitches will be cleared (Forestry commission). It is understood that trees are very good at storing carbon; this process of clearing trees undermines the principle of reducing carbon.

8.9 There is no mention in the tan8 document of the fire risk imposed by wind turbines. This could equally be applied forestry areas and dry moorland. Wind turbines have on occasion set on fire. (See attached pictures)

8.10 Tan8 2.10 '*The de-commissioning of wind farm development, the restoration of the site at the end of it's life and ensure that sufficient finance is available to implement these requirements*' I can only assume this would apply to the grid infrastructure as well. Please could the committee please inform MAP how if this whole scheme was to proceed how they would enforce this point in the TAN?

8.11 *Trees woodlands and hedgerows are of great importance, both as wildlife habitats and in terms of their contribution to landscape character and beauty. They also play a role in tackling climate change by trapping carbon' PPW 5.2.9*

8.12 Tan 2.14 'There will also be opportunities to repower or extend existing wind farms which may be located outside the SSA's and these should be encouraged' There even though we have spatial policy to define the SSA's for wind farms in reality the Tan encourages the installation of wind farms wherever.

8.13 The Montgomery wildlife trust (MWT) is concern about the implications of TAN8.

The Trusts question the wisdom of:

- concentrating wind farms into defined areas that are remote from sources of demand
- locating large-scale wind farms in areas not served by, or in proximity to, existing infrastructure
- so great an emphasis being placed on wind power as the primary form of renewable energy

TAN 8 also considered wind farm technology of the time and this was at a much smaller scale than that available today. With these points in mind, the Trusts believe that TAN 8 should be reviewed as soon as possible, with greater emphasis on other forms of renewable energies (*Montgomery wildlife trust position statement July 2011*)

8.14 Particular concern is the cumulative impacts of **ALL** the proposed developments. This could be in the form of regional displacements of populations of birds, noise impacts in the form of resonance between wind farms, as the turbines can have huge drainage schemes around their bases to keep the turbines stable, this will increase the speed of 'run off' and therefore the increased risk of flooding in the valleys. there is the prospect of significant flooding issues in the lower Severn and Vyrnwy valleys.

8.15 This view is echoed by MWT 'Trusts have long been concerned about the cumulative effect of large-scale wind farm development and with many upland areas of Mid-Wales already covered with wind farms, the impact of hundreds more turbines is likely to be significant. To date, there has also been widespread failure of the mitigation measures connected with large-scale wind farms to compensate for the loss of key species and habitats'

8.16 If this proposed development was to proceed, will the cumulative impacts be assessed?

9. Health

'Headline indicator of sustainable development:

Well-being in Wales'-*One Wales*

9.1 The very nature of the beautiful landscape means the village populations are concentrated at the bottom of the valleys. In the Meifod and Severn valley the proposed high voltage line will pass extremely close to several primary schools. We have already seen parents saying that they will move their children to alternative schools if the power lines are to come close to the school. The primary school can be regarded as the hub; the centre of the village closure of any primary school due to high voltage lines will have a profound effect on our communities.

9.2 Children with Leukaemia Society argues that there should be a minimum distance from high voltage lines. The Draper Report of 2005 shows a 69% increase in childhood leukaemia within 200m of high voltage lines, and some effects up to 600m from the power lines.

9.3 Powys school governor's association have endorsed this view and voted against the installation of power lines being installed within the distances set out in the draper report.

9.4 Recently the parliamentary council of Europe produced a report into the health aspects of electromagnet radiations

'The potential health effects of the very low frequency of electromagnetic fields surrounding power lines and electrical devices are the subject of ongoing research and a significant amount of public debate. According to the World Health Organisation, electromagnetic fields of all frequencies represent one of the most common and fastest growing environmental influences, about which anxiety and speculation are spreading.'

'The Assembly regrets that, despite calls for the respect of the precautionary principle and despite all the recommendations, declarations and a number of statutory and legislative advances, there is still a lack of reaction to known or emerging environmental and health risks and virtually systematic delays in adopting and implementing effective preventive measures'.

10 Transport

10.1 There will be a huge increase in transport traffic during the construction phase of the proposed developments. There will after this period be a significantly increased level of vehicle movements in mid Wales. Regular maintenance and repairs will mean perpetual gridlock. Turbine blades can crack in 5 years and the gearboxes could need replacing in 8 years.

10.2 The Capita Symmons report commissioned by Powys County Council suggest in excess of 400,000 extra hgv loads this is not including over 3000 abnormal loads.

10.3 These huge increases in heavy traffic movements will disadvantage existing businesses and deter more from coming to the area, and therefore have a detrimental effect on the economy as a whole. This point is of grave concern to many small businesses in the area

11.1 Alternatives

Wales' housing stock currently has a relatively poor energy performance. There are a large number of solid wall homes and many rural properties are dependent on oil or liquefied petroleum gas (LPG) for central heating. Tackling this backlog of hard-to-heat homes will create jobs, encourage skills, improve local areas and directly reduce fuel poverty. Energy efficiency investment has one of the highest coefficients of employment to spend of any area. ' Low carbon revolution the welsh assembly government energy policy statement p9

'In many ways energy and minimizing its use is the most important issue within the sustainable development agenda and thus the energy vision in this statement has to be based on sound 'sustainable development' in action – which means that both aggregate development effects, and often individual projects, will need to be assessed against an evidence based framework which looks at the following factors from a whole system / whole life perspective, with the importance of each of the factors often varying with the technology employed and sites under consideration:

- environmental consequences – global, regional and local;
- Economic (including energy price and appropriate investment discount-rate issues), job creation and skills aspects;
- Social, including fuel poverty, well being, community, public understanding and privacy issues;
- Energy security of supply – since without this our civilization is at risk'

The welsh assembly government energy policy statement Annex 5

11.2 Wales has Less than 5% of population of the UK but produces nearly 17% of the UK power needs we have installed capacity of 10,2GW (*Welsh Assembly Government Energy Policy Statement-Technical annex 1*). It would seem reasonable to say that there is an unfair burden on Wales for power generation.

11.3 The recent publication by the Committee on Climate Change 'The Renewable Energy Review' (May 2011) 'It is also important to consider opportunities for reducing energy bills through energy efficiency improvement:

- In the residential sector, we estimate that there is scope for a 14% reduction in heat consumption to 2020 through buildings fabric measures, boiler replacement and behavioral measures.
- Our analysis also suggests that there is scope for a 14% reduction in electricity consumption through the purchase and use of more efficient appliances.'

The options offered above would with out doubt have a positive effect employment, and would be an investment in permanently reducing the energy we need.'

12. Conclusion

12.1 When TAN8 was drafted BWEA had sold the wind turbines by saying they would load factor of 50% and reduce carbon at a rate of 0.86tCO2/mwh. This is now known not to be true. The load factor is now around 20% and the CO2 savings have halved at 0.43tCO2/Mwh, if these figures had been known at the time then the main type of renewable energy to promote would have been different.

12.2 Wind energy doesn't provide security of supply that underpins our society and economy.

12.3 Financially we cannot continue to fund a wind based renewable policy, it is not just the huge cost of paying for power when we don't need it, but the costs of trying to integrate this erratic unpredictable method power production into our existing grid system, that will ultimately increase fuel poverty, increase inflation and increase unemployment.

12.4 There will be significant depreciation in the value of housing stock in the area which could only be detrimental to peoples well-being, added to the fact parents will move their children from schools this would seem to contradict sustainable development principles set out in One Wales-**Headline indicator of sustainable development:Well-being in Wales** *'One Wales'*

12.5 With regard to the points set out above it is not only Tan8 that is flawed on many points but the whole energy policy is flawed as well. Tan8 and energy policy Wales is no longer sustainable. With the first minister saying 'TAN8 is irrelevant' then surely it must be scrapped.

I ask for a complete and rigorous review of Tan8 and energy policy for Wales.

'Wales plc' must maximize its assets to produce a vibrant and fruitful economy to destroy a magnificent asset such mid Wales with it's stunning landscapes, very low unemployment (2.4% PowysCC) would be regarded as incredibly poor business management.

How can the saving the planet mean the destruction of our local environment?

The representative body of the parks industry including caravans, chalets, lodges, park homes, tents and all types of self catering accommodation.



BRITISH HOLIDAY & HOME PARKS ASSOCIATION LTD

Chichester House, 6 Pullman Court,
Great Western Road, Gloucester GL1 3ND

Telephone: (01452) 526911
Facsimile: (01452) 508508

Email: enquiries@bhhp.org.uk
BH&HPA Members' Web: www.bhhp.org.uk
Consumers' Web: www.ukparks.com

Richard Rhodes
Director, BH&HPA Mid Wales Branch
Solstar
Dolguog Estates
Machynlleth
Powys SY20 8UJ

19 August 2011

Dear Richard,

Rural Development Contribution of Holiday and Touring Parks

The BH&HPA Board of Directors was concerned by your report of the proposals for intensive wind farm development in Montgomeryshire, to include not only turbines, but also pylons, overhead cables and sub-stations to distribute the energy generated.

Intensive development of an industrial nature in countryside that is attractive to holidaymakers will impact on the economic, social and environmental contribution of Holiday and Touring Parks. This contribution may not be fully recognised and it is important that the detrimental impact is taken into consideration alongside any benefit anticipated from a development proposal.

A Holiday or Touring Park's contribution will be economic, social and environmental. It will include:

- jobs that are sustained, both directly in the park business and indirectly in the locality
- the market created for local goods and services thereby supporting local businesses (shops, pub houses, attractions. ... even bus services) which remain viable through the patronage of park customers
- trade (and employment) for local businesses that work on parks (tradesmen, suppliers, plumbers and electricians: all who trade with the park)
- on-park facilities, such as a shop or swimming pool, which are available for local users and whose absence would be sorely missed
- conservation and biodiversity work on the park and in its surroundings
- involvement in local causes and educational projects
- the wellbeing of park customers and its important role in reinforcing family life
- maintenance of environmental assets, such as footpaths and beaches.

Park owners have a proven track record of protecting and enhancing the natural environment and, equally importantly, they provide a market for local goods and services and facilities that are often extended to their host communities. Parks create jobs in rural communities and their customers' patronage is often fundamental to the viability of marginal local businesses.



INVESTOR IN PEOPLE

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Registered Office - as above. Registered No 713398 England.

It is important that these essential contributions are taken into consideration by the planning authorities. The following pages provide some facts and figures (and their sources) which it is important that BH&HPA Mid Wales members whose park businesses will be blighted communicate in the consultation on the proposed development.

The attractions of the countryside are the single most important driver in bringing park customers to any area¹. 81% of park customers enjoy walking, 61% spending time in the countryside, 29% watching wildlife. Any development of an intense, industrial nature which blights the very rural aspect of the countryside will therefore greatly reduce the attractiveness of a park and a region to tourists. Therefore, any impact assessment considering proposals for development needs to take account of the loss of parks' very real contribution to the local economy and community.

With every good wish,

A handwritten signature in black ink, appearing to read "Ros R". Below the signature, there is a thin horizontal line.

Ros Pritchard OBE
Director General

Contribution of Holiday and Touring Parks

Tourist Statistics

Over 50% of the British population take a park holiday in their lifetimeⁱⁱ.

Tourism data are gathered by the United Kingdom Tourism Survey (UKTSⁱⁱⁱ) which recorded that in 2010, the parks industry accounted for:

- 15% of all UK tourism trips (18.1m)
- 21% of all UK tourism nights (77.2m)
- 13% of all tourist spend (£2.674b).

Economic Contribution

Caravan Holiday Homes

A study in Wales indicates that each caravan holiday home generates spending of between £6,721 and £19,138 each year into the local economy^{iv}.

2010 research^v amongst caravan holiday home consumers who participate in the BH&HPA rate-this-park consumer panel indicate that the average spend per night for an occupied caravan holiday home pitch is between £78.62 and £122.42. (The study asked consumers about their spend on items such as accommodation, travel, car parking, groceries, eating and drinking out, activities, attractions, capital items and other shopping.)

The annual economic contribution can be calculated if pitch occupancy is considered:

	Annual economic contribution per caravan holiday home pitch	
Annual pitch occupancy	From £	To £
20 weeks	£11,007	£17,138
25 weeks	£13,759	£21,424
30 weeks	£16,510	£25,708

Touring Caravans

The Camping & Caravanning Club places the average daily spend in the local community per touring pitch, **excluding** site fees, as £31.91^{vi}.

2010 research^{vii} amongst touring consumers who participate in the BH&HPA rate-this-park consumer panel indicates that the average spend per night for an occupied touring pitch is £72.17. (The study asked holidaymakers about their spend on items such as accommodation, travel, car parking, groceries, eating and drinking out, activities, attractions, capital items and other shopping.) The annual economic contribution can be calculated if pitch occupancy is considered.

	Annual economic contribution per touring pitch
Pitch occupancy	£
20 weeks	£10,104
25 weeks	£12,630
30 weeks	£15,156

Direct Employment

Considering employment across the industry, a 2010 report prepared by Oxford Economics for the British Hospitality Association, 'Economic contribution of UK hospitality industry'^{viii}, provided an assessment of the economic contribution of the core UK hospitality industry to the country's wider economy.

Two statistical classifications are particularly relevant to the parks industry:

SIC 2007 – 5530 - Camping grounds, recreational vehicle parks and trailer parks – defined as '*provision of accommodation in campgrounds, trailer parks, recreational camps and fishing and hunting camps for short stay visitors, provision of space and facilities for recreational vehicles and accommodation provided by protective shelters or plain bivouac facilities for placing tents and/or sleeping bags*'.

SIC 2007 – 5520 - Holiday and other short-stay accommodation – defined as: '*This includes the provision of accommodation, typically on a daily or weekly basis, principally for short stays by visitors, in self-contained space consisting of complete furnished rooms or areas for living/dining and sleeping, with cooking facilities or fully equipped kitchens. This may take the form of apartments or flats in small free-standing multi storey buildings or clusters of buildings, or single storey bungalows, chalets, cottages and cabins. Very minimal complementary services, if any, are provided.*'

'Economic contribution of UK hospitality industry' reported direct UK employment in these classifications as follows:

	Direct employment 1998	Direct employment 2010	% change 1998 to 2010
Camping grounds, recreational vehicle parks and trailer parks	19,000	29,000	+53%
Holiday and other short stay accommodation	45,000	50,000	+11%

Of particular note is the 53% rise in direct employment on holiday parks over the 12 years to 2010.

Research carried out in Wales^{ix} has resonance across the UK. Key findings of this research included that average number of staff employed on parks is 20 in low season, with this figure more than doubling in high season

Indirect Employment

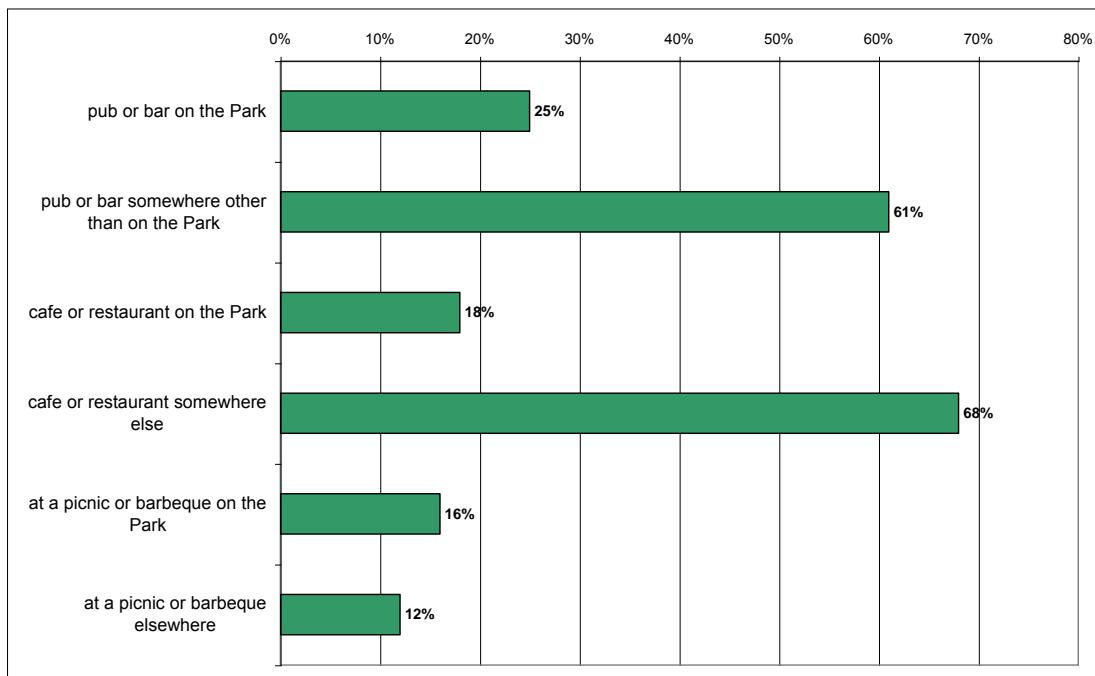
A 2001 study reported that every two caravan holiday home pitches account for one tourism job^x.

The Camping and Caravanning Club research^{xi} confirmed the wide range of activities pursued by visitors surveyed. These included:

- visiting the local pub (58%)
- eating in local restaurants (52%)
- visiting other tourist attractions (68%).

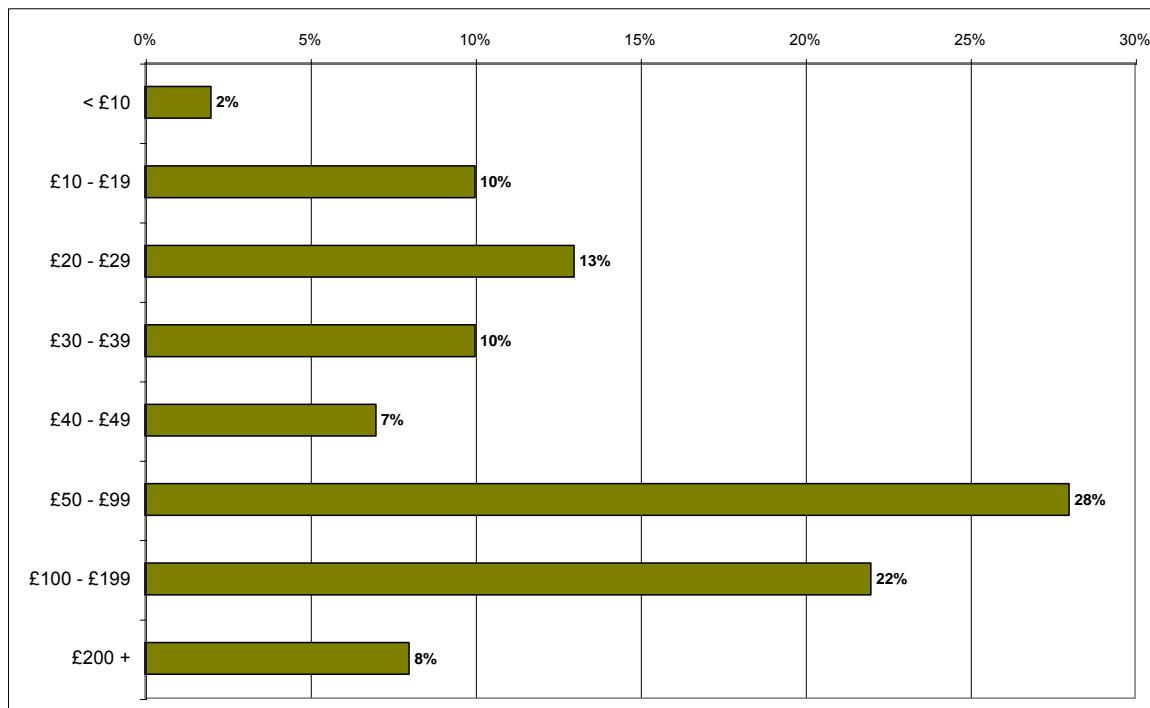
Park customers eating out

Park consumers who participated in the BH&HPA Consumer Panel in 2010^{xii} were asked if they ate out during their park holiday; the majority (68%) had purchased meals from restaurants in the area local to the park.

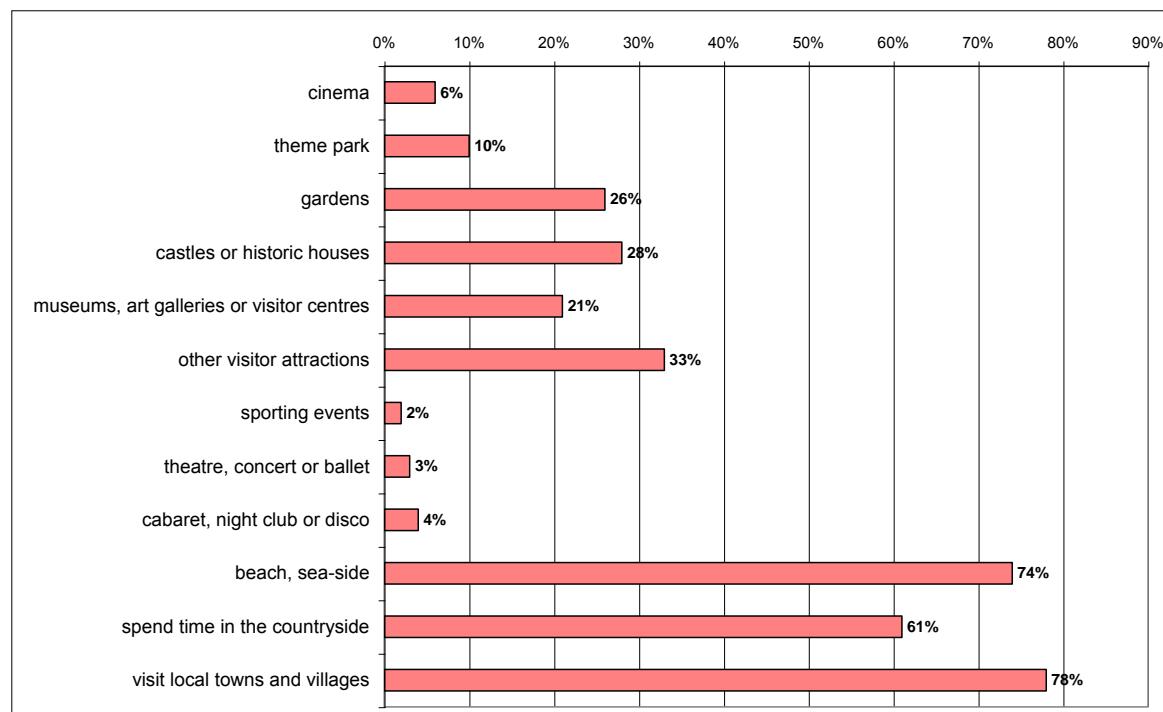


Spend by park customers on non-food shopping

Nearly two-thirds of park holidaymakers who participated in the BH&HPA Consumer Panel said that they spent money buying clothes, gifts or other shopping during their holiday. Items such as clothes or gifts accounted on average for nearly £45 of each park holiday group's expenditure.



The same study highlighted park customers' support of local attractions.



In addition to park customers' support of local attractions, hospitality and retail businesses, parks employ numerous tradesmen and local businesses to support their work, from plumbers and electricians to construction and horticultural companies, waste contractors to accountants and IT providers.

Caravans: a UK manufacturing industry

It is not only the direct and indirect tourist spend that sustains local economies; caravan holiday home and touring caravan manufacturing businesses, their suppliers and service providers are also important job and wealth creators.

With so few manufacturing industries having survived the economic tribulations of the last 50 years, it is important to emphasize that the parks industry sustains this important manufacturing sector. The overwhelming majority of lodges, caravan holiday homes, touring caravans and motorhomes sold on the domestic market are of UK manufacture.

The National Caravan Council publishes industry production figures from manufacturers' data, confirming production totals for the last three years as follows^{xiii}:

UK touring caravan sales

2008-2009	20,992
2009-2010	24,464
2010-2011	24,548

UK caravan holiday home sales

2008-2009	13,064
2009-2010	17,063
2010-2011	16,319

UK motorhome registrations

2008-2009	8,533
2009-2010	7,163
2010-2011	7,630

Sources

ⁱ 'Economic Contribution' December 2010, BH&HPA Research Report for the Rate-this-park consumer panel

ⁱⁱ 59.5% of the UK population stated that they had 'ever spent' a camping/caravanning holiday. 'Camping & Caravanning' research conducted for the European Commission by GFK Marktforschung GMBH & Co.kg (1989)

ⁱⁱⁱ United Kingdom Tourist Statistics 2010. www.visitengland.org

TRIPS	%	No.
Holiday camp/village self-catering	1.24	1,480,000
Camping	3.91	4,670,000
Touring caravan/motorhome	3.98	4,750,000
CHH Letting	3.21	3,830,000
CHH privately owned	2.83	3,380,000
TOTAL	15.16	18,110,000

NIGHTS	%	No.
Holiday camp/village self-catering	1.70	6,350,000
Camping	4.26	15,900,000
Touring caravan/motorhome	5.78	21,580,000
CHH Letting	5.18	19,350,000
CHH privately owned	3.76	14,040,000
TOTAL	20.68	77,220,000

SPEND	UK	£
	%	
Holiday camp/village self-catering	1.58	330,000,000
Camping	2.63	548,000,000
Touring caravan/motorhome	3.15	656,000,000
CHH Letting	3.87	806,000,000
CHH privately owned	1.60	334,000,000
TOTAL	12.83	2,674,000,000

^{iv} RPI from October 2003 to October 2009 applied to figures derived from 'Caravan Holiday Homes in Wales', The Tourism Company 2003, Wales Tourist Board and BH&HPA

^v December 2010, BH&HPA Research amongst the Rate-this-park consumer panel

^{vi} RPI from October 2007 to October 2009 applied to figures derived from 'Spend in the Local Community Summary Report', Camping and Caravanning Club - Easter and Summer Results 2007

^{vii} December 2010, BH&HPA Research amongst the Rate-this-park consumer panel

^{viii} ‘*Economic Contribution of UK hospitality industry*’, Oxford Economics, September 2010 www.bha.org.uk/wp-content/uploads/2010/10/BHA-Economic-Contribution-of-UK-Hospitality-Industry-Final-.pdf

^{ix} ‘*Caravan Holiday Homes in Wales*’, The Tourism Company 2003, Wales Tourist Board and BH&HPA

^x ‘*Holiday Parks - Your value to the local community*’, Ian Butter, BH&HPA Journal, March-April 2001

^{xi} ‘*Spend in the Local Community - Summary Report*’, Camping and Caravanning Club - Easter and Summer Results 2007

^{xii} ‘*Economic Contribution*’ December 2010, BH&HPA Research Report for the Rate-this-park consumer panel

^{xiii} ‘*The Business*’, National Caravan Council, Autumn 2011

