BWEA Cymru 08

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Jane Davidson AM, Minister for Environment, Sustainability and Housing
Keynote address

Dw i'n siwr does dim eisiau'ch atgoffa chi yma heddiw mai lleihau effeithiau'r newid yn yr hinsawdd yw'r her fwyaf sydd wedi wynebu dynoliaeth erioed. Dyna farn llawer o arbenigwyr a dw i fy hunan yn cytuno â nhw. Yma yng Nghymru, rhaid inni wneud popeth yn ein gallu i ryddhau llai o nwyon tŷ gwydr. Mae hynny'n cynnwys peidio â gwastraffu ynni, buddsoddi i arbed ynni a gwneud y gorau o'n ffynonellau ynni adnewyddadwy sylweddol. Dyna oedd ein rheswm dros gyhoeddi ein papur ymgynghori 'Trywydd Ynni Adnewyddadwy Cymru' ym mis Chwefror. Dw i'n falch iawn bod y rhan fwyaf o'r ymatebion iddo hyd yn hyn yn ei gefnogi.

No one here will need to be reminded that many experts believe that minimising the impact of climate change is the biggest global challenge that humanity has ever faced. I agree. In Wales we must do all that we can to reduce our greenhouse gas emissions. This includes stopping the waste of energy, investing in energy efficiency and making the most of our considerable natural renewable energy resources - hence the publication for consultation of our sustainable Renewable Energy Route Map in February. I am gratified that the response to the Route Map, which are being analysed, is mostly positive.

In the fight against climate change, Wales should be in the forefront of the transition to a low-carbon economy and, to that end, the Assembly Government believes within 20 years Wales can generate as much electricity from renewable sources as it consumes, as well as showing leadership in achieving major energy efficiency improvements and producing low carbon energy from sustainable biomass.

We have previously announced ambitious plans to stimulate much more energy efficiency and micro-generation in Wales, including our aspiration that all new buildings are constructed to zero carbon standards from 2011 onwards. Now, following the launch of the Renewable Energy Route Map, we are focusing on how we might exploit Wales' exceptional renewable energy resources.
We believe that with Wales' coastline, geography and climate, it is quite feasible for us within 20 years to produce more electricity from renewables than we consume as a nation: Our current consumption is around 24TWhr per year.

With sufficient innovation and investment, the right Government framework and public support, Wales could produce around 33TWhr per year of electricity from renewable sources - with about a half of this from marine, a third from wind and the rest mainly from sustainable biomass.
If we were to achieve this, then not only could Wales' electricity needs be met in their entirety from low carbon energy sources but we would also contribute significantly to the UK's energy security objectives - in particular by reducing our dependence on imported fuels in a world where energy geopolitical developments are of increasing concern.

How this can be done, and the specific actions we believe we should be taking, are explained in the Route Map on sustainable renewable energy.

The Route Map not only describes how we can meet our objectives for the renewable electricity but also explains how we want to see biomass sources used for significant renewable heat production, and summarises our strategic ideas on driving towards our challenging energy efficiency and small scale micro-generation ambitions. These will be

expanded in a full scale national energy strategy, including an energy efficiency and savings plan, which we will publish for consultation later this year. This will be a key part of our programme to reduce Wales' greenhouse gas emissions in areas within our competence by 3% each year.

Compared to energy generation using fossil fuels, we estimate that achieving the renewable energy aspirations in the Route Map would save some 4 million tonne of carbon emissions each year.

The plans which I have outlined will require a multi- million pound investment. We fully recognise the vital input from the private sector to achieving the rapid transition to a low carbon economy and we wish to explore with all concerned, including enlightened communities and innovative financial and organisational vehicles which might accelerate developments.

Many of these issues were discussed at the Welsh energy Summit in February, which followed the publication of the Route Map. There were strong positive reactions from those attending from across the energy spectrum about our ambitions and aspirations.

The route map is split into three main sections, dealing first with each of the renewables technologies, second, energy efficiency/micro-generation/distributed generation and, third, the key contextual issues of planning consents, electricity grid infrastructure and R&D capability.
On renewable technologies, we set out our current best estimate of the practicable heat and electricity generation outputs from each of the technologies by 2025-which we believe, particularly with the gestation period of the important wave and tidal power technologies, is a more appropriate target date than 2020.

Our most ambitious proposals are in respect of marine generated electricity, specifically capturing Wales enormous wave and tidal energy resource to meet about half of our 2025 renewable electricity aspirations. Our marine resource can be split into 3 components;

- wave-power,
- tidal stream and
- tidal range (this is better known as barrage and lagoon projects)

The Assembly Government has already started down this path. We are providing financial support for early stage wave and tidal stream projects, capturing the Wales marine data necessary to underpin the strategic environmental assessment. And jointly with the UK Government we are commencing a two year, £9 million feasibility study into capturing the massive tidal energy of the Severn Estuary.

This Severn study is following on from last year's Sustainable Development Commission report which estimated that 5% of the UK's electricity needs could be met from tidal range projects, especially in the Severn, and a further 5% could come from tidal stream projects around the UK.

On innovative tidal lagoons, we are looking into the possibility of using our EU Structural Funds to determine the practical feasibility of the concept. And for wave and tidal stream projects, I want to see our Structural Funds Programme effectively used in support of many more developments.
Later this year, following this Route Map consultation, we hope to produce a more detailed Wales bioenergy action plan and a marine energy action plan which will focus not only on energy production and environmental issues, but also how we can create a new marine energy business sector in Wales.

With wind we believe we have the potential to meet a third of our 2025 renewable electricity aspirations. But account must be taken of modern turbines being almost 150m high. Therefore for us, it is a most important consideration to get a measured approach both onshore and close-offshore. We have shown the way with our TAN8 renewables planning guidance for large on shore wind farms; this has objectively identified seven strategic search areas throughout Wales. Offshore, Wales already has the North Hoyle wind-farm off Prestatyn and other major projects are at various stages of development.

I appreciate that the wind development industry has been disappointed with recent progress in relation to onshore projects. As Planning Minister I am unable to comment on individual projects. However, I do recognise the importance of the regulatory controls, including planning, if we are to achieve our ambitions for renewable energy and the associated grid infrastructure which will be necessary. The Route Map has dedicated specialist sections on these issues on which we would be very glad to receive comments.

With all renewables projects, community benefit considerations are very important; but this is especially the case with wind projects of all sizes. The Wales Forestry Commission land-bank exercise is showing the way in this respect - and several option agreements under the programme have been awarded. We also welcome community owned wind farm developments, appropriately located, in Wales.

The extent of current wind-farm developer interest in Wales is illustrated in the ERM. We believe around 3,000MW of on and off-shore wind projects could be brought to fruition over the next 20 years. As to setting detailed targets, these will need to be considered in the light of the consultation responses. These will inform an overarching energy strategy to be produced later this year. This strategy will outline the contribution expected from different sources of renewable energy for the period beyond 2010. Having established the strategy, we will then review TAN 8, revising upwards the indicative targets for onshore wind energy up to 2020.
Despite Wales' considerable agricultural and forestry sectors, it is a relatively small country with limited biomass growth potential. However, biomass is the most flexible of the renewables - with its ability to produce clean heat, electricity and vehicle fuels. We also have the port facilities for the large scale import of sustainable biomass *(with the carbon footprint per tonne being much less for large ship than road transport).* We must find a sustainable solution for dealing with the residual fractions, (after full recycling) of municipal, agricultural and commercial wastes.

Further details will be available in the forthcoming Wales biomass energy action plan but in summary we believe biomass, (including waste) could produce each year some 7 TWhr of low carbon electricity and 3TWhr of low carbon heat.

The extent of possible Assembly Government support for the growth of energy crops will be considered in the context of the Axis 2 review-which itself will take into account the excellent work on next generation biomass crops and bio-refining which is being pursued at the Institute of Grassland and Environmental Research and collaborating universities.

Following international best practice on waste, which after recycling should mainly be biomass in content (the ERM details the range of source materials), the Assembly Government is fully committed to working with local authorities in finding the best 'energy from waste' solutions and to support extensive community engagement in development proposals.

While we have some hydropower operations in Wales (150MW), the creation of major new hydro-projects is unlikely to constitute sustainable development. Therefore prospects for much more traditional hydro electricity generation in Wales are very limited. However we are keen to explore the potential for more in-river local schemes

throughout the country, and will be working with the Environment Agency in Wales to look at the prospects.

I believe that microgeneration technology can play an important role in connecting people to the process of energy generation and valuing it more.

Through the National Energy Efficiency and Saving Plan I will be looking to promote uptake of microgeneration technology.

I am pleased that, in partnership with the UK Government's Low Carbon Buildings Programme, Wales is going to run a pilot project to extend grants for microgeneration heating units in vulnerable, hard to heat households.

We will be getting £1 million from the UK Government which we will match fund at least. Our aim is to draw in further funding from other partners and programmes wherever possible.

We are also promoting a strategic project under the Convergence Programme to support the development of community scale renewable energy generation projects.

We consulted on the relaxation of certain planning controls on micro-generation equipment on domestic properties towards the end of last year and the responses will inform future secondary legislation. I'm grateful to those who responded. We intend to undertake a similar exercise to relax planning controls for micro-generation equipment on commercial buildings later this year.

Also at the UK and Wales levels, there has been an increasing focus on issues such as feed-in tariffs, zero carbon building systems and large scale distributed generation. In the Route Map, we commit to exemplar public sector activities, generally supporting rapid movement in these areas and enhancing public awareness.

We must grasp all opportunities for improving the sustainability for all new buildings now, as a marker for the future, an exemplar for other public bodies and a catalyst for increasing the accessibility of new technology.

Our aspiration is for all new buildings constructed in Wales from 2011 to achieve zero carbon. This is a cross-cutting initiative which will work closely with stakeholders, including the construction industry.

We are driving forward improvements in the sustainability of buildings through a range of approaches:

The Sustainable Development Commission is bringing together the building industry and others to map out what we need to do to make zero carbon a reality.

We are promoting the Code for Sustainable Homes as the assessment framework for new housing and requiring at least Code Level 3 for all new housing that we influence through grant funding, investment and land disposals; moving to higher levels as quickly as possible.

We are earmarking exemplar projects to demonstrate low / zero carbon developments
The Welsh Housing Quality Standard has helped to drive improvements in the energy performance of public housing stock.

The third part of the ERM discusses our expectations on the important but specialised issues of consents, electricity grid infrastructure enhancements and R&D.

On consents, we continue to impress upon local planning authorities their important role within their strong climate change commitments to enable the development of renewable energy projects.

The Planning Bill is proceeding through its stages in Parliament. We have received reassurances that there will be no reverse devolution and there will be strong role for Welsh commissioners should an Infrastructure Planning Commission come into being.

We are in discussion with the UK Government to ensure that any forthcoming legislation which creates the IPC includes a requirement for involvement with the Assembly Government on the constitution of the IPC, National Policy Statements and individual project applications with special relevance to Wales.

On grid, we are engaging with distributors and transmitters (WPD, SP Manweb, NGT, Ofgem) about the need for grid strengthening in Wales. We welcome the recent proposals to speed up connections of renewables projects.

On R&D, we support our burgeoning energy technology base through the Wales Energy Research Centre and Wales Low Carbon Research Institute initiatives. We are committing to the effective use of the 2008-2015 EU Structural Funds (Convergence) programmes in Wales and exploring generation opportunities, including those in marine renewables.

In pursuit of our vital objectives, I will be working closely with all my Cabinet colleagues, especially the First Minister, Deputy First Minister and Education and Skills Minister, to ensure a holistic approach within Wales-including meshing these objectives and actions with those in our associated 'green jobs' and 'sustainable development skills' strategies. I will also work with UK Ministers, and with European Commissioners.

Any rise in energy costs, associated with renewable energy, has to be seen in the context of the 2006 Stern Report which makes it clear that there are greater benefits of tackling climate change and increasing the diversity of our energy mix now, when compared to the high cost of trying to deal with them later.

Using the results from formal economic models, it is estimated that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP.

We will not be able to move rapidly to a low carbon energy economy unilaterally; we need to work in partnership with the private sector, we need to ensure our regulatory consent processes are fit for purpose and we need to press for infrastructure enhancements. And, crucially, we need public support. The ERM consultation is an important step in securing that public support and engaging with communities and the people which will be affected by developments.