

Written Response to “Carbon Reduction from Energy Production - 4th report of the Sustainability Committee’s Inquiry into Carbon Reduction in Wales - May 2009”

Executive Summary

Our Sustainable Development Scheme, *One Wales: One Planet* confirms our vision for a sustainable Wales, based on Wales using only its fair share of the earth’s resources and becoming a fairer and more just society.

It makes clear our intention that sustainable development should be the central organising principle of the Assembly Government. Our approach to climate change is framed within that context and will be a critical element of putting the Scheme and our commitment to sustainable development into action.

One Wales sets out the Assembly Government’s commitment to reducing greenhouse gas emissions in Wales.

One Wales states:

“We will aim to achieve annual carbon reduction-equivalent emission reductions of 3% per year by 2011 in areas of devolved competence. We will set out specific sectoral targets in relation to residential, public and transport areas. We will work with the heavy industry/power generation industries to reduce emissions in those sectors”.

The 3% target relates to emissions of the basket of six greenhouse gases.

The target will include all ‘direct’ greenhouse gas emissions in Wales except those from heavy industry and power generation, which are being broadly defined as those installations covered by the EU Emissions Trading Scheme (EU ETS).

Emissions from most large power plants are covered by the EU ETS. However, because we recognise the importance of reducing electricity consumption in order to reduce emissions, we will also be including these emissions in the 3% target by assigning them to the end-user of the electricity.

This means that the direct emissions from transport, the residential sector, the public sector, waste, agriculture and land use change will be included, along with all business and industrial emissions that are not subject to the EU ETS. Additionally, we will be including the emissions resulting from electricity consumption in each sector.

We recognise that both industry and the public sector have an important role to play in reducing greenhouse gas emissions and our consultation on a *Climate Change Strategy – High Level Policy Statement* provided an overview of the areas where we saw potential to deliver emission reductions in these

sectors. We are now developing specific proposals for action in these and other sectors for consultation in the summer.

We also recognise that delivering our targets and ensuring that effective action on climate change is taken requires everyone to play their role, not just the Assembly Government, and we are working through the Climate Change Commission for Wales and with individual sectors and organisations to support action across Wales. We also recognise that UK Government and EU policies and programmes will have a critical role to play in achieving our targets.

The 2008 Renewable Energy Route Map gave our current best estimate of the practicable heat and electricity generation outputs which can be achieved by 2025. It focused mainly on how Wales might exploit its tremendous renewable energy resources. In particular 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. We estimate that achieving the renewable energy aspirations in the Route Map would save some 4 million tonnes or more of carbon emissions each year. The Route map consultation received over 120 detailed responses. The majority of commitments were supported.

The Route Map also forms part of a series of proposals that will lead to the production of comprehensive climate change and energy strategies for Wales and assist in the development of the programme to deliver our commitment to achieve annual 3% reductions in greenhouse gas emissions from 2011 onwards.

The evaluation of the Route Map responses will inform the development of an overarching Energy Strategy for Wales in late 2009. This strategy will outline the contribution expected from a range of sources of renewable energy for the period beyond 2010 as well as setting out wider energy issues concerning the security of supply. The Route Map did not discuss large scale energy production in Wales from fossil fuel and nuclear sources, but the overarching Energy Strategy will set out our formal policies in these and other areas, including renewables, in even more detail- once we have reflected on the responses to the Route Map consultation.

We believe Wales could produce at least 33TWhr per year of electricity from renewable technologies by 2025 – with about a half of this from marine, a third from wind and the rest mainly from sustainable biomass. Developments since the publication of the Route Map, especially in respect of offshore wind, could mean we can aspire to a figure of greater than 33TWhr pa.

Once the overarching Energy Strategy has been established, TAN8 will be reviewed, revising upwards the targets for renewable energy drawn from a range of sources.

There are 3,000MWs of renewables developments in the pipeline including offshore wind projects at Gwynt y Mor 750MW, Rhyl Flats 100MW and the

Preenergy biomass project 350MW. The remainder mainly concerns onshore wind, including Forestry Commission Landbank proposals. Investment in proposed and consented renewable energy projects in Wales, mainly on and off shore wind and biomass, would total approximately £8.5 Billion.

In the future consents in Wales for large power stations (above 50MW on land and 100MW at sea) and large power infrastructure (inc gas pipelines and electricity grid) will be a matter for Infrastructure Planning Commission (IPC) determination. However, in making these determinations, the IPC will have to follow the guidance in the relevant UK National Policy Statements (NPSs). These are being prepared by the Department of Energy and Climate Change and the Department of Communities and Local Government with the Welsh Assembly Government being a statutory consultee on their drafting. It is expected that relevant Wales Planning guidance will be reflected in the NPSs, which like all major new policy documents with spatial planning elements, will also need to be subject to an overarching strategic environmental assessment on which the Welsh Assembly Government will be involved in any Wales related aspects.

I have set out below my response to the report's individual recommendations.

Responses to individual recommendations

Headline Recommendation 1: Whilst we acknowledge the lack of powers of the Welsh Assembly Government over fossil fuel energy production in Wales, we recommend that the Welsh Assembly Government, as part of its energy strategy, produce a strategic framework for all energy production in Wales, indicating spatially and in terms of output the preferred energy mix for Wales.

Response: Accept in principle

The overarching Energy Strategy for Wales will outline the contribution expected from a range of sources of renewable energy for the period beyond 2010 as well large scale energy production in Wales from fossil fuel and nuclear sources.

Financial Implications: Covered by existing budget.

Headline Recommendation 2: The Welsh Assembly Government undertake a thorough review of the adequacy of the transport infrastructure and grid connection for the construction of both fossil fuel and renewable energy plants in the areas identified in the strategic framework recommended in HL1. AND

Headline Recommendation 3: The Welsh Assembly Government to continue to encourage grid and distribution companies to work co-operatively with developers to develop an integrated approach to connection for large scale renewables.

Response: Accept in part

The issues raised mainly concern on-shore wind projects. We are aware that development of on-shore wind farms, particularly in Mid Wales, have implications for the management of transportation of construction materials. We are discussing the question of a strategic approach to managing these transport issues with BWEA, industry developers and other stakeholders including the Assembly Government's own transport experts. Our aim is to ensure there is collaboration minimising the impact of this activity on local communities.

Tan 8 acknowledges that the electricity grid will require reinforcement to meet our renewable energy aspirations. The Assembly Government has been working with National Grid and distributors to discuss the specific requirements of our infrastructure strengthening. National Grid is proposing to adopt a "strategic investment" policy, the objective of which will allow them to build certain new transmission capacity ahead of clearly signalled user demand. National Grid has discussed four possible UK areas for this with Ofgem including strategic investment into mid Wales. National Grid is currently looking at route selection and environmental impacts of new infrastructure, community engagement and addressing community concerns. The Assembly Government and National Grid welcome the findings of the Electricity Networks Strategy Group (ENSG) Study on Electricity Transmission Network.

Financial Implications: The cost of the highway improvements necessary for wind turbine components to be transported to sites by means of Abnormal Indivisible Loads is yet to be established. The safe movement of components will require a dedicated police resource. The windfarm developers will be responsible for these costs.

Likewise grid reinforcement costs will not be borne by the Assembly Government. The ENSG report advises that when total generation, whether wind or nuclear in Anglesey, exceeds 1.8GW it will be necessary to construct a new circuit from Wylfa to Pentir and a second circuit from Pentir to Trawsfynydd, together with associated works further east. The report refers to the creation of a hub substation to which all mid Wales windfarms will connect. From this a single transmission route will connect to England. The exact locations of the hub substation and the transmission connection point are being evaluated. The estimated cost is £225M.

Headline Recommendation 4: The Welsh Assembly Government simplifies the number and nature of targets set for carbon reduction and ensures that there is consistency and explicit linkages between targets for renewable energy and carbon reduction.

Response: Accept

The Sustainable Development Scheme provides the overarching framework for our action on climate change and energy policy in Wales. All of our targets

and actions need to be consistent with the vision set out in the Scheme and our objectives for Wales to become a one planet country.

Our commitment to annual 3% reductions in greenhouse gas emissions in areas of devolved competence is the overarching target for tackling climate change. It sits within a strong framework of UK, EU and international targets for emission reduction and promoting renewable energy.

In developing our Climate Change Strategy, which will be published later this year, we will review the range of current targets and look to simplify where possible.

Financial Implications: No additional financial implications because the recommendation proposes simplifying existing targets and ensuring that there is consistency between them

Headline Recommendation 5: The Welsh Assembly Government focuses on the achievement of the targets it has set by:

- **Providing sufficient incentives for the research, development and manufacture of renewable energy technologies in Wales;**
- **Issuing guidance and advice on ways to achieve the targets; and**
- **disseminating widely examples of good practice of organisations and individuals achieving its targets.**

Response: Accept in principle

The Green Jobs Strategy, which is currently being finalised following a public consultation earlier this year, will set the framework for assessing and capturing the employment opportunities that could be created by a move to a sustainable low carbon economy including low carbon energy generation.

Through the Green Jobs strategy we will identify how skills will be provided for the development, installation and manufacture of sustainable technologies. For example we have an Energy Sector Skills Champion and some of the Further Education Institutions are investing in new training facilities like those at Pembroke College opening in early summer.

Substantial support is available through the WEFO Convergence and Competitiveness Fund programmes. A Wales biomass energy support programme (WEBS) has recently been approved and we are in the final stage of developing a project for community scale, low carbon energy generation projects. A key component of the project is establishing a network of advisers who will provide expert advice and support to those developing projects.

The creation of the Wales low carbon research institute was supported by a £5 million collaboration and re-configuration grant from HEFCW.

We are working to support the dissemination of good practice in all sectors, for example:

- We support Cynnal Cymru who provide details of renewable energy projects on their website and other communication channels
- We developed a community action pack and associated DVD which included advice and case studies of renewable energy projects
- We have held a series of events for community groups to provide advice and support, share good practice and network, support for developing small scale renewable energy projects have been a key theme of these events
- We fund the Carbon Trust to provide advice and support in Wales and they disseminate good practice on renewable energy generation in business and the public sector
- We are working through Spatial Plan Area Groups to develop the concept of 'low carbon regions' and the need to share experience and good practice has been a strong theme in those discussions. We are developing plans on this. Similarly we are working to share the good practice that is emerging from Local Service Boards that have identified tackling climate change or promoting sustainable development more widely as a key theme.

Incentives for the research and development of renewable energy technologies are available from WEFO programmes and the Technology and Innovation group within our DE&T Division. Funding for business is available from both the Specialist Innovation Support scheme of the new Business Innovations project and from the Single Investment Fund. Support for the academic sector can be provided through the WEFO supported Academia for Business 'A4B' project. Advice on sources of external sources of R&D funding can be obtained from the Enterprise Europe Network Wales group. Advice and support on the manufacture of renewable energy technologies can also be obtained through the Business Innovations project.

Financial Implications: Covered within existing budgets apart from the Community Energy Project will only go ahead if European funding is available. The administration and advice service element will be a direct cost of around £350,000 each financial year for the Assembly Government.

Headline Recommendation 6: The Welsh Assembly Government to explore the potential for local authorities in Wales to issue loans for the installation of domestic microgeneration technology e.g. the Kirklees scheme, or repayment based on feed in tariff revenue.

Response: Accept in principle

We will consider look at the options around developing a loan scheme to encourage the uptake of microgeneration by householders. This consideration will address:

- The business case for such a programme and the fit with other funding sources, including from the UK Government

- Possible sources of funding to support such a programme
- The scale and detailed operation of such a programme including giving full consideration of the most appropriate delivery body

We already fund the Carbon Trust in Wales and a key part of the programme that funding supports are loans to SMEs for the installation of low carbon technology.

The *National Energy Efficiency and Saving Plan* set out our intention to develop a public sector invest to save loans focused on energy efficiency and carbon reduction as part of the consultation on the *Climate Change Strategy – Programme of Action*. The detailed way forward will be confirmed following the consultation.

Financial Implications: There would be financial implications of developing a scheme for local authorities to provide loans for microgeneration technology for householders. This would vary depending on the size of the scheme, but would need to be over £1m to have any impact. We are progressing this recommendation on the basis that we will be seeking alternative sources of funding for such a scheme, not Assembly Government budgets.

The Energy Mix

Recommendation 1: The Welsh Assembly Government indicate the renewable energy mix that will be required in Wales to meet the 2020 targets which does not include a scheme in the Severn Estuary and lobbies the UK Government to do the same.

Response: Reject

It is unlikely that a Cardiff-Weston barrage could be completed by 2020, but smaller schemes might be ready by that date. The massive low carbon energy resource potential in the Severn, if extractable within a sustainable development framework, should be captured as soon as possible.

Financial Implications: Covered by existing budget.

Recommendation 2: The Welsh Assembly Government to lobby the UK government with its views on the use of Carbon Capture and Storage technology to ensure that any new fossil fuel power stations built in Wales are CCS ready and that any new fossil fuel power stations built are close to areas where satisfactory carbon storage can take place.

Response: Accept

The recommendation will be broadly supported in the Welsh Assembly Government's response to the UK Government consultation "Guidance on Carbon Capture Readiness and Applications under Section 36 of the Electricity Act 1989".

Financial Implications: None

Renewable Energy

Recommendation 3: The Welsh Assembly Government to issue guidance to communities and developers on the use of monies gained from community benefit agreements on carbon reduction and/or sustainable projects (e.g. community heating schemes, home insulation, development of community energy action plans) and of match funding available from the Welsh Assembly Government and EU funding streams.

Response: Accept in principle

The Assembly Government supports the principle behind the recommendation and will investigate how the recommendation could be achieved and consider the implications.

We are not accepting the recommendation outright because of the range of activities it would cover. It would include some areas where we might be able to require that a developer had regard to the guidance (for example as a condition of our funding) and others where we would only be able to encourage its use.

We also want to avoid simply producing guidance without considering how it would be disseminated and the potential resource implications for supporting dissemination.

Financial Implications: Costs of developing guidance will be minor but effective dissemination and support would have further financial implications. In total we would not expect those costs to exceed £50,000 per year but before committing to developing a dissemination programme we would need to assess the costs in more detail.

Recommendation 4: The Welsh Assembly Government establish and publicise a database of existing community benefit schemes which can be used by communities wishing to enter into such schemes to identify good practice.

Response: Accept in principle

We agree that sharing information on existing community benefit schemes would be valuable but do not consider that setting up a new database is, necessarily, the best way to go about it.

We will look to use existing mechanisms, for example Cynnal Cymru's website and project lists, to capture this information.

Financial Implications: There would be minor financial implications of developing a list of projects and keeping it updated, By taking the

recommendation forward through existing mechanisms, for example Cynnal Cymru's database of projects, it will be possible to manage these costs from within existing budgets.

Recommendation 5: The Welsh Assembly Government to issue guidance on and provide funding for the development of community energy action plans.

Response: Accept in principle

We are supporting the development of a range of guidance and tools for communities to use in taking carbon reduction action and there are existing resources available. Rather than reinvent the wheel, we will assess the resources that are available and consider whether directing people to an existing resource or producing additional guidance would be most effective.

There are a number of grant schemes available for community groups to access and we do not propose introducing a separate one for the development of community energy plans.

As indicated above we are in the final stage of developing a European structural funds project for community scale, low carbon energy generation projects that will include a network of advisers who will provide expert advice and support to those developing projects.

Financial Implications: The development of guidance will have minor cost implications which can be met from within existing budgets. We do not propose developing a separate funding programme for community energy action plans and would expect communities to seek support through existing mechanisms that support community projects.

The Community Energy Project will only go ahead if European funding is available. The administration and advice service element will be a direct cost of around £350,000 each financial year for the Assembly Government.

Recommendation 6: The current TAN8 should be urgently revised to include all forms of renewable energy including marine renewables.

Response: Reject

To clarify the situation, for offshore installations Welsh Ministers are responsible for licensing under the Food and Environment Protection Act 1985 (FEPA) and not currently the Coast Protection Act 1949 (CPA). However, following the proposals in the Marine and Coastal Access Bill new, CPA functions will be devolved and combined with FEPA to form the basis for the Marine Licence. Currently, deposits in the sea are regulated by FEPA and this covers all offshore installations within Welsh Waters. Therefore, with

reference to Table 3 of the report, the Welsh Assembly Government has, and will continue to have, a consenting role for all offshore installations.

The Assembly Government has a commitment to revise TAN 8 following the production of the Energy Strategy, revising upwards the targets for renewable energy drawn from a variety of sources. The planning system's responsibilities finish at the low water mark and therefore has no control over marine renewables. The revision of TAN will therefore not address marine renewables.

Marine renewables will however be covered by the new system of marine planning to be introduced by the Marine and Coastal Access Bill. Welsh Ministers will be responsible for marine planning in Welsh inshore and offshore waters. The new system of marine planning will enable us to bring together and clarify our policies relating to the marine area in Wales, clarify our marine objectives and priorities for the future, and direct decision-makers and users towards more efficient, sustainable use and protection of our marine resources.

The first stage of this marine planning system will be the preparation of a marine policy statement to create a more integrated approach to marine management and setting both our short and longer-term objectives for sustainable use of the marine environment across the UK. It is then intended that the second stage will be the creation of a series of marine plans which will set out more detailed and spatial policy at a local level, based on information about specific areas and the uses being made there of the sea.

Financial Implications: Covered by existing budgets.

Recommendation 7: The Welsh Assembly Government should issue guidance to local authorities on the use of policies for carbon reduction in Local Development Plans.

Response: Accept in principle

On 7th May, the Assembly Government issued a Ministerial Interim Planning Policy statement on Planning for Sustainable Buildings accompanied by a new draft Technical Advice Note 22 'Planning for Sustainable Buildings'. Both of these policy documents give a very firm steer to local authorities about the need for implementing low and zero carbon development. In addition we have commissioned research to provide local authorities with a renewable energy toolkit which will help them create locally appropriate development plan policies. The research will highlight by way of a pilot study using real information, how local planning authorities can assess their potential for renewable energy as well as low and zero carbon development. The research will conclude later this summer.

Financial Implications: Covered by existing budgets.

Recommendation 8: The Welsh Assembly Government to continue to encourage grid and distribution companies to work co-operatively with developers to develop an integrated approach to connection for large scale renewables.

Response: Accept

Covered in response to Headline Recommendation 3.

Recommendation 9: The Welsh Assembly Government to lobby the UK Government to:

- **Implement the Renewable Heat Incentives Scheme as soon as possible;**
- **Ensure that any renewable obligations scheme in Scotland does not operate at the expense of investment in schemes in England and Wales.**

Response: Accept in part

The Renewable Heat Incentive Scheme will need to ensure that small-scale users of renewable heat are able to claim appropriate incentives without excessive bureaucracy, and that incentives for large users are structured so as to maximise the reduction of carbon emissions.

The Scottish ROCs is designed to attract businesses to Scotland. This is acceptable as long as Scottish taxpayers/utility meet the expense.

Financial Implications: The Assembly Government is currently supporting the procurement of anaerobic digestion through a specific procurement programme. This programme is funded through the Strategic Capital Infrastructure Fund, with £26 million of assistance available to local authority anaerobic digestion procurement hubs over the period 2009-2011.

Recommendation 10: The Welsh Assembly Government lobby the UK Government to ensure that any large scale biomass schemes approved in Wales are appropriate in terms of being CHP schemes and in terms of not contributing to carbon emissions through transport and other emissions;

Recommendation 11: That it is made a prerequisite for any small and medium scale biomass schemes be CHP schemes. AND

Recommendation 12: That the revised Wood Energy Business Scheme (WEBS) supports CHP.

Response: Accept in part

CHP can be very effective when there is a continuous need for heat, as in some industrial situations where effective use of the waste heat more than makes up for the reduction in efficiency* of electricity generation compared to

a non-CHP system. If the heat need is intermittent or seasonal, a CHP scheme might not be the preferred option, especially when the cost of the infrastructure is taken into account.

The Welsh Assembly Government would wish to see large biomass power stations located where effective use could be made of waste heat, and we will work with the UK Government to this end. We will also urge that sustainability criteria being developed internationally for fuel for biomass plants take into account greenhouse gas emissions from transport, harvesting, processing etc.

The new WEBS scheme will support CHP where appropriate.

Financial Implications: Covered by existing budget.

Recommendation 13: The Welsh Assembly Government takes a lead in promoting the Low Carbon Buildings Programme in Wales and lobbies the UK Government to renew the Low Carbon Buildings Programme after 2010 in addition to the proposed system of feed in tariffs for renewable energy generation.

Response: Accept in principle

The Low Carbon Building Programme is a UK Government scheme and the lead for its promotion, and the costs for that promotion activity, lie with them. As part of our approach to encouraging the uptake of microgeneration we will publicise the Low Carbon Building Programme as an important source of support.

The Assembly Government will continue to work with the UK government on developing plans for future schemes intended to support the uptake of microgeneration including further phases of the Low Carbon Building Programme.

Financial Implications: None, there are no financial implications associated with this recommendation.

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Minister for Environment, Sustainability and Housing

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