'Re-energising Wales'
Programme for Government recommendations

The new Welsh Government must make far-reaching decisions about the energy sector. An ambitious approach combining innovative energy saving measures, new planning guidance and the encouragement of dispersed renewable energy generation could both re-energise and rebalance the Welsh economy and meet our national and international climate change obligations.

The IWA has recently embarked on a three year project to develop a practical, long term Welsh energy strategy. This project will assess, in detail, the projected energy demands in Wales and how these could be fulfilled from renewable sources by 2035. It is hoped that this project will make a significant contribution to policy development and our technical insight. The project builds on the existing evidence base which includes the National Assembly's Environment and Sustainability Committee's "A smarter Energy Future for Wales" report.

There are practical short term measures the new Welsh Government should undertake in this Assembly term to begin stimulating the Welsh economy through energy policy. This short document is not a panacea for the challenges facing the Welsh economy and energy sector, but advocates measures that will make a significant difference across Wales through commitment to ambitious targets and timescales, alongside clear and practical plans for delivery.

Energy Demand

Energy demand management and energy efficiency interventions should be prioritised. Such investments have proportionately greater employment impacts and greater potential to reduce fuel poverty than UK government actions (such as the Green Deal) which have effectively failed to make a difference. Reducing energy demand is particularly important given the strain put upon the economy and environment as a result of meeting current demand requirements. Welsh Government action in this area could make a real difference:

1. To ensure that the emission targets are reached, Wales must set ambitious demand reduction targets covering all sectors (such as those which have been set elsewhere in Germany for example). An initial demand reduction target should be set now for the end of this Assembly term. Denmark, for example, has agreed initiatives which will result in a reduction of almost 7.6% gross energy consumption in 2020 relative to 2010. Demand reduction targets should be based around successful initiatives that incentivise efficiency and not the decline of industry.
2. Welsh Government should work with the Future Generations Commissioner and Natural Resources Wales to undertake a national conversation on energy efficiency and demand reduction. This would enable a wider understanding of the issues important to people across Wales and the barriers to a reduction in demand. From this it would then be possible to implement a long term communications strategy, which could efficiently target these barriers to efficiency and demand reduction.
3. Welsh Government needs to improve and expand on its energy efficiency strategy to develop clear practical targets. This strategy should go beyond the rhetoric of the current strategy and include tangible deliverables on heat, cooling and energy storage. Targets must be put in place to retrofit Wales' homes and businesses. A recent report suggests that to bring all homes up to a 'SAP rating' of C by 2035 would require approximately £800 million in Wales between now and 2020. Such a programme would help both to reduce carbon emissions, create jobs and tackle fuel poverty. Refurbishment interventions are typically labour intensive and the net employment benefits associated with the programme could total around 20,000 full time equivalent workers employed per annum. There will also be positive impacts for people within Welsh homes and workspaces in terms of health and wellbeing as a result of investment in this area, thus alleviating some of the strain on the NHS in Wales. Welsh Government should investigate how new borrowing powers or other instruments can be used to kickstart this large scale retrofit and upgrade, in collaboration with partners such as local authorities and registered social landlords.
4. Within transport policy there are significant opportunities to reduce both energy demand and emissions. Demand reduction should emphasise active travel, for example, via a long term investment strategy for safer cycling and walking, integrated public transport and improved spatial planning. Energy efficiency should be embedded in the planning process. There is an opportunity within transport to both

reduce emissions and generate income through initiatives such as congestion charges in high population areas and increased car parking charges. Furthermore, with changing technologies there will be a rising demand for electric vehicles. Welsh Government should explore how they can support infrastructure for these vehicles and individuals who might want to shift from fossil fuel to electric vehicles.

Skills

The transition to a low carbon economy requires a workforce with the right skills:

5. The next Programme for Government should include measures to increase the green skills of the local construction SME sector in Wales. A Welsh green skills qualification for individuals and a green accreditation scheme for businesses could be developed to ensure that people have the right tools and understand the technical issues associated with improving energy efficiency in buildings. These schemes should take into account publications such as the Sustainable Traditional Buildings Alliance 'Planning responsible retrofit' guidance.

Local Energy Supply

It is already clear from international comparisons that decentralised energy generation has an important future role. While the IWA project will generate detailed proposals, immediate consideration should be given to removing the obstacles, often bureaucratic, to such development in Wales. A national strategy which permits and indeed encourages decentralisation, so that local communities are in greater control of energy generation and distribution is required. Local and community control and ownership of energy assets, in some cases in collaboration with the public sector, should be prioritised as is the case in Germany, Denmark and the Netherlands.

At a time when UK policy such as reductions in subsidy impact heavily on projects on the ground, the Welsh Government needs to take measures which will encourage the development of socially, technically and financially innovative projects that are applicable locally and that have the potential for wider diffusion.

6. Welsh Government needs a strategic plan to outline what it could achieve with further devolution of energy powers and precisely what powers are essential. One essential element is a much greater say for Wales over how the grid, Distribution Network Operators (DNO's) and

energy companies operate. Given the establishment of a Constitution Committee following the 'compact' between Plaid Cymru and Labour, this issue is a key area that the Committee needs to investigate as part of discussions between Wales and Westminster around the next Wales Bill.

7. The distribution grid is not fit for purpose because capacity issues are a barrier to increased local renewable energy supply. Welsh Government should undertake an analysis, in collaboration with the National Grid, DNO's and others of how the grid in Wales (North, Mid and South) can be upgraded to respond to Wales' particular energy aspirations.

8. The Welsh Government should explore setting up not-for-profit energy services in Wales with key objectives including offering energy supply locally, tackling fuel poverty and developing and financing the generation of the energy it supplies through renewable energy sources. Energy supply companies should aim to become energy service companies seeking to manage demand for customers. They should offer incentives for improving energy efficiency and improving the integration of technologies like demand response and storage.

For questions regarding this briefing, please contact shea@iwa.org.uk or call 02920484387.

Appendix 1- About the project

The Re-energising Wales project is managed and coordinated by the Institute of Welsh Affairs and funded by the Jane Hodge Foundation. The project is steered by a group of leading experts in the energy sector. The full list of Steering Group members can be found in appendix 2. The project fully supports and seeks to build on the recommendations made by the National Assembly's Environment and Sustainability Committee's "A smarter Energy Future for Wales" report released in March this year.

The project will provide a fully worked out plan to enable Wales to meet its projected energy demands entirely from renewable sources by 2035, which will allow Wales to achieve an 80% reduction in energy-related greenhouse gas (GHG) emissions in the same time.

'Re-energising Wales', will show how this can be achieved by embracing a dispersed model, that changes the relationship between people and energy, and maximises the contribution from community and locally-based enterprises. The target date of 2035 for our energy saving goal is based on targets already set by Germany and Denmark. Our work will take place over the next three years.

Appendix 2- List of steering group members

Prof Gareth Wyn-Jones (Chair IWA Energy group)
David Clubb, RenewableUK Cymru
Rob Procter, Community Energy Wales
Bridget Rosewell, Senior Adviser, Volterra Partners & member of the UK Government Infrastructure Commission
Prof Gerald Holtham, Managing Partner of Cadwyn Capital LLP, and former Economic Advisor to the Welsh Government
Dr Einir Young, Director of Sustainability at Bangor University
Prof Stuart Irvine; Director, Centre for Solar Energy Research, College of Engineering, Swansea University
Prof Nick Jenkins; Director of the Centre for Integrated Renewable Energy Generation and Supply, Cardiff University
Prof Ian Masters; Associate Professor, College of Engineering, Swansea University
Chris Blake, the Green Valleys Project
Prof Judith Marquand, WISERD (Wales Institute of Social & Economic Research, Data & Methods), Cardiff University

Keith Jones, National Trust (Wales)
Professor Calvin Jones, Cardiff Business School
Professor Ian Knight, Welsh School of Architecture
Dr Gwenith Elias, The Sustainability Lab, Bangor University
Jeremy Smith, RWE
Jess Blair, Policy & Projects Manager, IWA
Shea Jones, Re-energising Wales Project Officer, IWA