

# Political Economy

## Energy Resilience in Wales: examining the scope for policy responses<sup>1</sup>.

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**The Welsh Assembly Government (WAG) has ambitious targets on renewable installation, and on mitigating climate emissions. This article looks at how far WAG's powers offers the scope for these targets to be met.**

Four things matter for energy use and climate emissions in Wales (as elsewhere). These are the generation of electricity, the movement of people and goods, the heating of our buildings and the activities of our industries. The remit of the Assembly does not extend fully to all these areas, and this has strong implications for how far Wales can actually move ahead of the UK in becoming a low carbon region, for either climate or energy security reasons.

Take electricity; much has been made, over a number years, of Wales' potential in renewable sources of energy, such as wind, wave and, more latterly, the tidal range of the Severn Estuary. Yet this potential mostly remains untapped. Wales' total of 4% electricity from renewables is higher than that of England, but it is behind Scotland and indeed much of the rest of Europe. Meanwhile, whilst the amount of installed renewable capacity is increasing, this is at too slow a rate to meet Assembly targets, let alone provide the diversified generation mix that might be needed for economic and social resilience in the face of steeply increased fossil fuel energy costs in the upcoming decade.

This slow pace of onshore wind installation is a function of limitations to the Assembly's powers. Policy (and land use planning) control over large-scale energy is retained in Westminster, not devolved to Cardiff. This lack of authority inevitably limits the Assembly's ability to develop an electricity generation mix for Wales that will reduce the risks inherent in 'peak oil' and attendant fossil fuel scarcity, and meet the climate change targets demanded to reduce CO<sub>2</sub> emissions. Whilst the Assembly Government can influence land use planning processes to ease renewable development (as they have done through TAN8<sup>2</sup>), and encourage research in Wales into alternative energy technologies, it cannot influence the take-up of commercial opportunity on the part of energy companies. This instead relies upon the level of power *required* to be sourced by energy companies from renewables, and this is determined at the UK-level through Renewables Obligation Certificates.

An additional factor is the cost-competitiveness of renewables versus other technologies. Within the UK's privatised energy market, more renewables than aimed for will only be installed in place of gas, coal or nuclear if it is cost competitive to do so. Even onshore wind, the cheapest renewable source has difficulty competing with gas and coal on pure cost (and in the absence of a high cost-of-carbon). The approval for new nuclear build in Wales,

together with the gas fired 2000MW power plant at Milford makes it extremely likely that the overwhelming majority of Wales' energy mix will remain resolutely non-renewable in the next ten years. By the time fossil fuel energy costs increase in response to peak oil, it may be too late to undertake the massive investment needed in decentralised generation capacity and the 'smart grids' that make renewables work.

For transport, the position is a little better in terms of Assembly remit, with much transport policy devolved and additional powers granted in the 2006 Government of Wales Act. Here, however Assembly Government policy is hampered more by timidity than lack of power. The ruling out of any road charging on Wales' existing trunk network in the Wales Transport Plan is a very strong signal that the Government is unwilling to impose any costs on motorists or businesses additional to those emanating from Westminster. The few 'carrots' that are in evidence (more cycle and pathways, a sustainable travel town initiative in Cardiff) are not capable of changing the fundamental relative cost of private versus public transport, and Wales still has the highest dependence in Great Britain on cars for commuting, travel to school and leisure trips. At the same time Welsh people earn the lowest wages in the UK, and rising fuel costs will mean less people at the lower end of the income scale able to access work and basic services. The imperative for government to create the conditions which will deliver an integrated public transport system of sufficient capacity and at appropriate cost is perhaps greatest in Wales.

Under an energy crunch scenario, lower income households will suffer increased costs for household heating, electricity and cooking. The Assembly is already striving to reduce domestic energy consumption through the Household Energy Efficiency Scheme which seeks to help those in fuel poverty. The scheme, aimed at the least well off has

lifted 70% of its recipients out of fuel poverty. However, an increase of only 30% in fuel prices would be enough to drag all these households back into fuel poverty. An increase of 12% between 2004 and 2008 in the number of fuel poor households in Wales despite Assembly action shows the influence of increasing fuel prices, and illustrates that the Assembly aspiration to eliminate fuel poverty by 2018 will need constant adjusting in the face of increasing energy prices.

The final large element of our direct fuel use (and hence climate emissions) is Welsh industry. Wales has a higher proportion of manufacturing than the UK average, and this manufacturing is more energy intense than the UK average manufacturers in Wales undertake activities which require 50% more energy than the UK average to create £1m of output (*See also feature article by Jones and Roche later in this Review*). Clearly, this is a relevant concern in the context of increasing energy costs. Luckily, what interventionist powers exist are fully devolved to the Assembly. Perhaps less luckily, Assembly policy interventions cannot be characterised as moving Wales towards energy resilience. Many of our key supported (and grant aided) sectors, such as steel, aerospace and automotives are (and will remain) high-energy users either directly or in terms of their final products. The competitive vulnerability of these key sectors in a time of ground-up restructuring driven by climate regulation and energy costs is of overriding concern. Meanwhile, the Assembly's Flexible Support for Business Scheme is a generic support tool that has energy and environmental performance as one of only a dozen areas where help is available, with no prioritisation - and then defaulting to the UK-wide Carbon Trust as a provider of advice and with very low levels of resource available (in the form, for example, of interest free loans). Grant aid of £28m to Airbus is grant aid that cannot then be spent on encouraging low carbon businesses or behaviours: until Assembly Policy reflects this

'opportunity cost' and prioritises support for resilient businesses, we will remain on a high energy and high carbon industrial path until increased UK energy costs force our key businesses (almost all foreign-owned) to close their doors and head for locations where energy is lower cost.

Wales will be vulnerable in a UK having increasingly limited access to fossil fuel sources that are reliable and abundant. The impact of the global peak of oil production will be felt directly in Wales, by the latest within 10 years, with an economy and population no better prepared than other regions.

There are two basic approaches that the current (or the next) Government in Wales could take to the energy crisis. Firstly, it could rely upon the UK government to fulfil its responsibility

and plan for sharply decreased imported energy with a credible, costed and holistic energy strategy. In this case WAG must surely have concluded that UK-wide actions are sufficiently sophisticated to protect prosperity in Wales in terms of direct interventions (given our different industrial mix and population dispersal), that UK and European energy markets can respond effectively to rapidly changing economic stimuli, and that public finances can recover quickly enough from the dire position in 2009 to appropriately fund actions directly and via the normal redistribution channels (i.e. the Barnett Formula).

The other option is to assume the worst: that one or more links of this chain will break, and Wales will suffer substantial economic dislocation and increased poverty following an energy crunch. If

this stance were taken then it would be the responsibility of the Assembly to embark upon a risk assessment exercise that identifies the key likely impacts of an energy crunch, and suggest policies to minimize these impacts. Clearly this route would involve a difficult, complex and expensive journey, and probably call for a fundamental reassessment of the nature of party politics in Wales, and the quality of debate between Welsh politicians, civil society, people and industry. It involves upsetting and inconveniencing many people.

If, however, the government, the people and businesses in Wales do not together take this difficult path (and quickly), the future is likely to offer far worse than upset and inconvenience.

Notes:

1. All supporting material can be found in 'Wales in the Energy Crunch', <http://www.lulu.com/product/download/Wales-in-the-energy-crunch/6068644>
2. <http://Wales.gov.uk/topics/planning/policy/tans/tan8/?lang=en>