



The Zero2050 South Wales study outcomes for the post Covid-19 world?

During the recent one-year anniversary of the declaration of a climate emergency by the Welsh Parliament, Lesley Griffiths, the Minister for Environment, Energy and Rural affairs made the position in Wales clear when she declared that: “In repairing the damage to our society and our economy caused by the pandemic, we must ensure we consolidate the progress we have made in answering the climate emergency and take every opportunity to make sure a healthier and prosperous Wales is also a greener and more sustainable one.”

In this context, the work to progress the decarbonisation of South Wales is still very much continuing. In this article we look at how the Zero2050 South Wales work packages in this Ofgem financed initiative and collaboration between NGET, NGGT, WWU and WPD, might be modified in the light of the new global-wide health and economic challenges so they are still on track to help South Wales identify the best paths to achieve the net zero goals, preferably on a smart, whole energy-systems basis.

The Zero2050 project aims to build the evidence to support a move towards successful economy, which has citizens' wellbeing at its heart and which doesn't have any greenhouse gas emissions or reaches a net zero emissions state. And whilst the current circumstances have shifted somewhat due to the recent global coronavirus pandemic, the drive and determination to get to the ultimate destination haven't changed and there have been glimpses of the positive environmental elements of a much lower carbon emissions world.

There will clearly be opportunities to accelerate the low carbon transition, including through creating a more understandable vision of that future – which in itself should encourage all of us to play our individual role in achieving that net zero state. Hence many are now exploring what an effective 'smart, clean and green' recovery plan might look like to deal with the tragic consequences of the Covid-19 pandemic.

Overall in an economic recovery context, the Zero2050 project will likely be likely affected by looking at the more immediate value that a decarbonised energy system can offer in terms of affordability, resilience and job-creation prospects.

And there will be many of the work packages which will help provide answers to several particular questions, including how to help:

- Identify the most attractive low-carbon generation, grid transmission and distribution networks opportunities for the region, especially those which do not create daunting financing challenges.
- Overcome the challenges to quickly achieve more active transport, low-carbon transport and heating as part of developing much smarter homes, towns and regions.

- Explore the range of effective decarbonisation paths for industry with positive productivity and competitiveness consequences.
- Maximise the impact of positive societal changes which seem to be currently underway including: more IT enabled meetings and home-working; stronger interest in better homes; greater recognition of the importance of communities and an increasing recognition of the wellbeing impacts of access to green spaces and beautiful locations.

And while regional scale initiatives such as this and the associated South Wales Industrial Cluster (SWIC) programme will help illuminate such answers, there are also other existing low-carbon focused initiatives which will help, including a range of:

- 'Smart living' low carbon pilots focussed mainly at the local authority level, such as Bridgend's 'smart-town/borough' work with Energy Systems Catapult and Hitachi; the Milford Haven, 'energy kingdom' hydrogen-system focused study funded by Innovate UK and the linked Offshore Renewable Energy Catapult (OREC) partnered, floating wind/marine energy explorations;
- World-class low-carbon technology R,D&D projects including Welsh/UK Governments/ Ofgem funded projects as the Specific/ABC work in Swansea university on developing energy-positive buildings; the Wales and West Utility's sponsored 'Project Freedom' work on hybrid-heat pump/boiler heating systems; the Flexis university consortium study of Port Talbot as a low-carbon demonstration zone and the South Wales Compound Semiconductor Catapult and partners leading-edge work on micro-, opto- and power electronics, some of which will enable smart low carbon developments, and
- Regional scale economic-growth initiatives such as the Cardiff and Swansea City Region deals and the Mid Wales growth deal – which all have strong low carbon elements.

All these initiatives recognise the importance of extensive stakeholder engagement in debating how best to achieve the affordable, resilient and clean energy systems of the future. Studies suggest that people ultimately want an interesting, healthy life and a future that provides comfort, convenience and cleanliness. A net zero future provides that, through high levels of energy efficiency; smart low carbon energy and transport, active travel and access to beautiful green spaces amongst other things. These net zero initiatives should help show us the way, not only in South Wales but also by actively demonstrating what can be achieved, hopefully much further afield.

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