

Cynulliad Cenedlaethol Cymru Pwyllgor Amgylchedd a Chynaliadwyedd	National Assembly for Wales Environment and Sustainability Committee
Dyfodol Ynni Craffach i Gymru? Ymateb gan Cyngor ar Bopeth (Saesneg yn unig)	A Smarter Energy Future for Wales? Response from Citizens Advice
SEFW 08	SEFW 08



Cynulliad
Cenedlaethol
Cymru

National
Assembly for
Wales

Response to the National Assembly for Wales' Environment and Sustainability Committee's inquiry on A Smarter Energy Future for Wales – September 2015

1) How can we decarbonise our energy system at a sufficient pace to achieve the necessary reductions in emissions?

1.1 Citizens Advice has statutory responsibilities to represent energy consumers¹. Citizens Advice Cymru supports UK and Welsh Government efforts to decarbonise the economy, in line with the objectives laid out in the Climate Change Act 2008 and the timetable set down in subsequent carbon budgets. We believe the approach most likely to achieve the Act's objectives is one which minimises costs to consumers, and ensures that resources committed to decarbonisation go the furthest. The principal policy to support cost-effective UK - and European - action on climate change should be an adequate price on carbon, however the power to amend carbon taxes is not currently devolved.

1.2 We do not think it is necessary or desirable, however, for carbon targets to be supplemented by numerous sub-targets, including for decarbonisation of particular sectors, nations, or deployment of specifically chosen technologies. An approach that sets the right high-level objective and then allows for competition to identify the most cost-effective routes to achieve it is more likely to achieve best value for consumers. As a result, this first response will look at UK-wide policy with implications for Wales, before highlighting Wales-specific matters in response to later questions.

1.3 The three key elements of emissions reduction are decarbonising the supply of energy, reducing demand from all consumers, and increasing the use of energy storage.

¹ On 1st April 2013 responsibility for consumer representation was transferred from Consumer Focus to the Citizens Advice Service (including Citizens Advice Cymru) following the UK Government's review of the consumer landscape. From 1st April 2014 this includes statutory functions and responsibilities to represent post and energy consumers.

1.4 Citizens Advice's response to the Committee on Climate Change's (CCC) 5th Carbon Budget consultation² made the following points:

- There are huge opportunities for carbon savings through changing consumer behaviour and reducing household energy consumption.
- The complexity of achieving this has led successive UK Governments to focus the bulk of investment and policy effort on measures affecting the generation side.
- This has meant energy efficiency policy UK-wide has fallen behind schedule, jeopardising earlier carbon budgets and raising the difficulty level for the 5th carbon budget, as well as having a damaging impact on energy affordability

1.5 The focus on the supply-side also fails to prepare the energy distribution network for significant disruption from new technologies. For example, as more consumers choose to reduce their exposure to centralised generation by investing in domestic storage and renewable generation, how does this impact on those customers who lack this flexibility, due to their financial situation? Will the networks be left providing for a smaller number of, on average less well-off households, and will this mean new payment structures will be required? These issues have already come to the fore in sunnier markets where solar PV penetration is much higher. Neither Wales nor anywhere else in the UK, is yet in a position where this is a significant problem, but it will be worth keeping an eye on deployment trends to identify if it becomes a more acute risk in future.

1.6 This could be a particular problem after 2030, should renewables plus storage come close to grid parity in the UK. If affordability issues remain proportionately higher in Wales, a devolved approach may be required to ensure those customers are not left behind.

1.7 The Welsh Government has invested extensively in domestic energy efficiency property retrofit for fuel poor households, but to make the necessary contribution to UK carbon targets it will need to increase energy efficiency uptake across all households, businesses, and the public estate. We welcome the fact that it is consulting on a new energy efficiency strategy which considers these areas, and will be submitting a response to that consultation separately.

1.8 A greater focus on cost-effectiveness in generation policy decisions is also desirable. The UK Government has recently made a number of changes to subsidies for renewables. Citizens

² Citizens Advice CCC 5th Carbon Budget consultation response: <https://www.citizensadvice.org.uk/about-us/policy/policy-research-topics/energy-policy-research-and-consultation-responses/energy-policy-research/committee-on-climate-change-5th-carbon-budget-consultation/>

Advice is particularly concerned about new limits being placed on onshore wind, which is one of the cheapest forms of renewable energy.

1.9 The challenge for the Welsh Government will be to reconcile its ambitions on decarbonisation, with the reserved nature of decisions on energy infrastructure, and subsidies via the renewables obligation and the levy control framework. However there are opportunities to act at a Wales level, and we consider these below.

2) What mixture of distributed generation resources best meets Wales' renewable energy needs in respect to the supply of a) electricity, b) gas, and c) heat?

2.1 Governments should not seek to pre-determine the mix of technologies, but should instead provide a level playing field for companies offering particular technologies to compete to deliver carbon reductions at the lowest cost. This means that, among other things, governments must ensure distributed generation can access the grid on fair and efficient terms.

2.2 At present the power to make these strategic decisions about major infrastructure rests with the UK Government, but we would encourage a similar approach to planning by the Welsh Government.

3) How does the grid distribution network in Wales enable or restrict the development of a new smarter energy system? What changes might be needed in terms of ownership, regulation, operation and investment?

3.1 Networks have a vital role to play in sustainability strategy, in that their development is essential - and potentially rate-limiting - for the growth of renewable energy.

Consumer Engagement

3.2 Our research has found that a big challenge in this area is customer engagement. Citizens Advice's report *Where Next For The Smart Energy Consumer?* explores consumer benefits from projects funded by the Low Carbon Network Fund (LCNF), which aims to stimulate innovation in electricity networks.

3.3 The report found that the key to success - ensuring that benefits in terms of reducing emissions or avoiding the need to make capital-intensive investments - is often a local approach. Many local energy initiatives already exist, so working with councils and community groups is a key way for smart grids to build on this potential. Trial findings suggest that emerging technology will be key to empowering consumers to engage with the smart grid, so long as it is reliable and simple to control. Intelligent and interconnected solutions where the consumer is passive have been particularly effective, suggesting scope to build on these in future.

Role of networks

3.4 Behind the scenes, there is much networks can do to manage energy before it reaches consumers' homes. Automated voltage control, self-healing grid and enhanced fault prevention are not phrases most consumers will need to learn, but they may have an important (beneficial) impact on the service they receive. In addition, smart data on energy usage can be valuable to shaping policy, but customers must give fully informed consent to the use of their data by networks.

3.5 Our report Many Happy Returns investigated the rates of return enjoyed by regulated monopolies such as Distributed Network Operators (DNOs). It found that profit margins for DNOs far exceed what is needed to ensure the continued provision of essential services. We are aware that distribution charges in Wales are amongst the highest in the UK. While network operators can often be a bottleneck to infrastructure improvements, this is not due to a punitive financial settlement. On the contrary, networks must now deliver the promises made in their last price control settlement, to improve customer environmental outcomes, which justified the generous returns granted to them.

Networks and community energy

3.8 Citizens Advice's report Beginning To See The Light has made the case for greater transparency on performance reporting by distribution network operators (DNOs), and set out in detail the steps Ofgem should take to deliver this. DECC has identified a lack of network transparency as one of the current barriers to the development of community energy, stating:

“Community groups have told us that connecting to the electricity network can be a major barrier to getting projects off the ground. The speed and cost of network connection, perceived inconsistencies between the way DNOs engage customers, the need for greater transparency of network connection costs, and the apparent lack of opportunity for regular strategic engagement with DNOs are all issues for the sector.”

3.9 Citizens Advice Cymru has heard similar concerns raised informally by community energy groups in Wales. We would urge the Committee to explore whether small scale generation

projects in Wales face additional barriers to securing a grid connection, compared to England. We would welcome evidence on whether this is caused by the state of repair of the grid, unfair charges, or poor strategic engagement by DNOs leading to a failure to 'future proof' the grid for distributed generation.

4) How can energy storage mechanisms be used to overcome barriers to increasing the use of renewable energy?

4.1 The Committee has clearly identified the key role energy storage must play in any move to greater reliance on renewables, as well as delivering demand side reduction (DSR). We do not have any comments on the technical challenges associated with this.

4.2 However there will be a need to ensure consumers are able to confidently and competently make use of domestic level storage technology as it reaches a wider market, and that appropriate time of use (TOU) tariffs are on offer from suppliers to incentivise behaviour change. Consumers' experiences of electric storage heating, the closest equivalent to this technology which is currently in common use, indicates some of the risks and challenges.

4.3 Consumer Focus' report From Devotees To The Disengaged (2012) suggested that nearly 40 per cent of consumers on Economy 7 were on the wrong tariff, and were therefore getting no benefit from it. This indicates a strong risk that many could be left worse off by new TOU tariffs, and savings envisaged by the smart meter programme.

4.4 The report concluded that:

- The introduction of DSR should be phased, starting with simple offers that build on present opportunities presented by storage and energy efficiency.
- The comparability of DSR offers will be key and more work is needed to provide consumers with the tools they need in order to choose whether to engage.
- When it comes to the risks presented by DSR, attitudes of 'wait and see' or 'buyer beware' will not be enough. Proactive protections need to be put in place around financial liability and accountability.

5) To investigate the desirability and feasibility of greater public and community ownership of generation, transmission and distribution infrastructure and the implications of such a change.

Ownership of infrastructure

5.1 Whilst we do not have a view on the desirability of local or public ownership, we would urge the Committee to consider generation, transmission and distribution separately.

5.2 Transmission by its nature operates nationally, and requires the oversight of a centralised system operator (National Grid - currently run, by necessity as a monopoly) which makes decisions about balancing capacity and meeting demand. Public ownership of this infrastructure has been the model in the past so is clearly feasible, but if Wales moved in this direction, it is unlikely the rest of the UK/GB would follow suit. There would remain dependencies across the border with England, so this would require negotiated agreements with DECC and others regarding how supply and demand would be balanced.

5.3 Distribution could either be interpreted as being within a small geographic area corresponding to a particular community, or as over greater distances within a county. The feasibility of community ownership and management will vary according to what scale is being considered. Maintenance of a micro-generator which only serves local houses will be easier to manage locally than it would be for a generator which supplied energy to the wider grid over a distance.

5.4 Generation, particularly at a small or micro scale, is fundamentally easier to manage at a community level, consisting as it does of discrete pieces of infrastructure which could be locally managed and maintained. Even here, though, the difficulty and desirability of community or national public ownership will vary from, for example a small wind farm in comparison with major power station.

Ownership of supply

5.5 We note that the Committee is not considering local or public ownership of energy supply. Whilst we again do not have a view on the desirability of this, it is clear that suppliers can wield considerable influence over their individual customers' ability to take control of their energy usage - not least through their role delivering smart meters. How this interacts with any move towards local ownership of generation etc. will be an important consideration in any policy making.

5.6 An example of locally owned supply is Our Power, a new independent energy supplier in Scotland owned by a consortium of 35 housing associations, councils and other organisations. The company was set up with financial support from the Scottish Government in the form of a £2.5m loan. Our Power aims primarily to tackle fuel poverty amongst its tenants, and will be offering a 'smart from the start' approach, making use of the resulting data to identify where issues with a property are causing energy waste and therefore increasing costs to tenants. We call on the Committee to monitor the progress of Our Power and to consider the merits of the model

5.7 The company will not enter the market until later this year, so it is clearly too early to reach a verdict on the success or otherwise of this approach. However we would urge the Committee to monitor the progression of this with a view to considering the merits of the model.

6) How can the planning system and building regulations be used to improve the energy efficiency of houses (both new build and existing stock)?

6.1 Citizens Advice Cymru believes the Welsh Government should use building regulations to future-proof new home building projects by ensuring they meet the highest possible energy efficiency standards. It should also require developers to install new green technologies - such as small scale renewable generation, district heating, and energy storage - where it would benefit residents to do so.

6.2 Consumer Focus' report What's In It For Me? explored how consumers weigh up what's on offer. Perceived benefits of an energy efficiency measure need to outweigh the perceived barriers, including costs, before they take action. Therefore any new approach to planning policy must put customers' needs, motivations and concerns at the centre, to ensure good response rates, reduce costs, and avoid wasted effort.

6.3 We note that the Welsh Government has recently introduced a Home Improvement Loan scheme for existing housing stock. There is much to learn from the experience of the Green Deal finance scheme, which suffered from complexity, issues with assessment and certification, issues with guarantees and warranties, and issues with audit, standards and training. All of these factors contributed to low uptake of the scheme, which was ultimately scrapped.

7) What would the environmental, social and economic impacts be if Wales set higher energy efficiency standards for new build housing? (e.g. Passivhaus or Energy Plus)

7.1 Citizens Advice Cymru does not have any detailed analysis or modelling of the impacts of such a policy in Wales. We would again refer to the findings of our Taking Control report in respect of the need to adequately understand consumer motivations in policy design. The report notes:

“...policy development is often incomplete: failing to identify the trigger for action, providing an incomplete accreditation framework, providing better information without ensuring consumers can then use that information to take control; or weakening building regulations which not only has a direct impact on homebuyers but also sends a signal to the wider property market of the low value the [UK] Government places on energy efficiency.”

7.2 When looking at new build in particular, it will clearly be important to scope the cost implications of adopting new standards. Welsh Government will need to understand what level of trade-off between energy efficiency and cost increase homebuyers find acceptable. Clearly there are also cost savings in the longer term from living in a highly energy efficient home, but this will need to be communicated in a way consumers can understand and be enthused by.

7.3 We note the recent construction of the ‘Solcer House’ built in Bridgend by the Low Carbon Research Institute, which is claimed to be zero carbon, to generate more energy than it consumes (‘energy positive’), and to be built to affordable housing standards. We would urge the Committee to engage closely with those involved in this project to understand whether this model could be adopted as standard practice in the construction of affordable housing.

8) How can communities, businesses and industry contribute to transforming the way that Wales thinks about energy? Does the answer to this challenge lie in enabling communities to take greater responsibility for meeting their future energy needs?

8.1 No answer.

For further information or any queries please contact:

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