

Written Response by the Welsh Government to the report of the Environment and Sustainability Committee entitled A Smarter Energy Future for Wales.

Energy is central to modern life and we need a smarter, cleaner energy system to underpin a prosperous low carbon future for Wales. I am grateful to the previous Environment and Sustainability Committee for conducting the inquiry to inform this Government's work in the current term and thank them for their work. I welcome the report and look forward to working with all the participants who have provided the wealth of evidence on which it is based, in order to keep Wales on track to deliver this future.

The recommendations made within the report are closely aligned with our strategic policy direction and I am pleased to be able to accept them. Some require further consideration, however, I support the intent of the proposed action and believe we can work together, with others, to achieve the intended outcome.

In accepting the recommendations, I am pleased to update the Committee on Climate Change, Environment and Rural Affairs on the work already undertaken to implement them and to set out what additional actions we plan to capture the full intent of the recommendations.

Our strategic energy policy, "Energy Wales: A Low Carbon Transition" sets out our direction for developing a decarbonised energy system, which is capable of supporting a prosperous and secure, healthy and active, ambitious and learning, united and connected Wales.

The long term and strategic direction of this policy remains valid. However, the world has changed since it was published, and the environment in which our policy operates will continue to evolve. Therefore, we need to support our clear and long term aims with more focus on areas of priority. I will be making an oral Statement regarding my immediate priorities in December.

Government cannot deliver the future energy system Wales needs on our own. We must work together with citizens, local authorities and developers, with network providers and regulators, if we are to have the scale and pace of transformation needed for our ambitious decarbonisation targets. The recommendations in many cases need others to take action. However, there are clear roles for Government in providing strategic leadership, in convening the necessary partners, and in supporting and enabling change. We will work with others to provide the structures and direction to enable and encourage this transformation.

We are already providing support across all sectors to help people make investments in energy efficiency and generation. Providing people with independent advice on the potential for action, and robust technical support in making decisions and implementing them, is resulting in investment, delivering efficiencies, saving carbon and creating commercial opportunities. We will continue to involve people as we refine and refocus our support to ensure we achieve results in cost effective ways. Wales' natural resources provide an abundance of opportunities to support the transition to a low carbon economy. The Welsh Government is committed to working in partnership to deliver its energy ambitions in ways which benefit people and businesses, now and for the long term.

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

Detailed Responses to the report's recommendations are set out below:

Recommendation 1

The Committee recommends that Wales must establish a clear vision for its future energy policy, including a central role for local energy.

Response: Accept

As set out in the introduction, our strategic energy policy, "Energy Wales: A Low Carbon Transition" was clear in establishing our direction. Wales needs a decarbonised energy system capable of supporting a prosperous and secure, healthy and active, ambitious and learning, united and connected Wales.

Since its publication we have been establishing the legislative and structural framework necessary at this stage for its delivery. This includes the pioneering Well-being of Future Generations (Wales) Act, which sets out the principles by which we will make decisions across the public sector, and with a long reach into other sectors through the role of public bodies. The Planning (Wales) Act sets the stage for a planning system which considers development through the lens of the Well-being Act; and the Environment Act sets a system of carbon budgets and interim targets that serve as stepping stones to reduce emissions by a minimum of 80% by 2050.

We have established Natural Resources Wales (NRW), which is providing rounded advice on the economic, social, environmental and cultural impacts and benefits of developments. Ongoing work within NRW is already helping to streamline consenting processes to better enable appropriate development.

We have also provided significant support to all sectors on resource efficiency and generation, which is already reaping benefit for Wales.

However, we do recognise the need for more detailed information about the possible pathways Wales could take to reach the strategic goals. We therefore need to support our clear and long term aims with more focus on areas of priority, to maximise the benefit to Wales from innovation and the decarbonisation of the global system.

In order to develop more detailed information we need more detailed evidence. We will therefore develop the evidence around options for energy generation and use, building on the work already achieved at UK level and within the energy sector. We will involve the necessary partners in the process of weighing their impacts and making choices, in order to chart the best course for Wales. We will share the evidence from this work on our energy pathway, so others can also use it to make decisions at all levels across Wales.

This work will be intimately linked with the work already under way to inform the first two carbon budgets and interim targets and will provide the additional energy specific data we will need for national and local decision making.

Our “Green Growth Wales: Local Energy” document published in 2015 established the clear role we see local energy playing in future. We need to more clearly define what this means, and the extent of the role within our shared energy future. We have already done further work on this, to establish an early baseline for the extent of locally owned energy in Wales. We have published an update to the Low Carbon Energy survey using the available ownership data.

This work identified that in 2014 7,201 active projects in Wales were definitely locally owned: making up 14% of the total projects and providing Wales with 171 MW of installed capacity. Because not all data sources used collect ownership data, we do not know the ownership of a further 1133 projects, totalling a further 147.6 MW. It is highly likely a proportion of these projects are also locally owned. We will look to improve the data on ownership in future work, whilst having an eye to what is affordable.

However, locally owned projects provided only 6% of the total low carbon generation capacity in Wales. We will need generation at all scales to secure our low carbon future. Our energy path work will give us greater clarity on the level of demand across Wales, and the scale at which it should best be met to provide local value

We are already working through our Local Energy service to support collaborations between developers and communities, both as social enterprises and as Local Government. To make sure larger developments are necessary and well sited, they must be embedded within local development plans, as part of the fabric of the region. We will continue to work with all involved to understand better what support is needed to achieve this, and to maximise the benefit of all scales of energy generation for Wales.

Financial Implications – The costs of developing our evidence base and evolving policy positions will be drawn from existing programme budgets.

Recommendation 2

The Committee recommends that Wales must set annual targets to reduce demand for energy and help people to use it more efficiently.

Response: Accept in principle

Reducing the amount of energy we need makes sense on all levels: it reduces the amount of energy we need to generate, it reduces energy costs for the bill payer, and it reduces emissions. We have already done a lot to help people and businesses to reduce energy. However a greater driver is needed to stimulate action in all sectors and to drive the development of a market for the able to pay.

We consider the Environment Act's requirement to reduce emissions by a minimum of 80% will be the key tool in driving this change. In developing the supporting regulations, such as the interim emission reduction targets and carbon budgets, we will need to fully assess the implications of different pathways, taking advice from the UK Climate Change Committee before we can work out what the pathway for decarbonisation should be. The energy mix will be a key feature of this work. We agree that a better understanding of the demands for energy across different sectors will be necessary, including how that may change in future.

The majority of the actions needed to improve the building stock are decisions for those who own and occupy the residential and commercial buildings across Wales. These changes also represent a business opportunity for responsible suppliers and installers. Our role is to promote the need for action, to help people understand what they could do, and provide information and support to enable them to act with confidence. We also have a duty to ensure advice is robust, as the impact of installing the wrong measures, or poor installation and service, can be costly.

The area is complex, and the UK Government commissioned the Bonfield review to identify what else is needed in this area. We will consider its findings in the context both of the support we provide, and of the action UK Government needs to take to drive greater efficiency.

The Resource Efficient Wales (REW) service launched by Welsh Government in 2014 includes a number of programmes to help support individuals, communities and businesses to become more resource efficient. REW is the Welsh Government's single point of access which provides information across a range of resource efficiency topics, delivered mainly through advice on how to reduce energy, water, resource use and waste which equips communities and businesses with knowledge on the benefits of resource efficiency.

Welsh Government Warm Homes, which includes the Arbed and Nest schemes, provides funding for energy efficiency improvements to low income households and those living in deprived communities across Wales. It supports the Welsh Government's commitments to:

- help tackle fuel poverty
- reduce carbon emissions, and
- deliver jobs and growth in the energy efficiency sector in Wales.

Both schemes consider a whole house approach to home energy efficiency improvements. This helps to tackle harder to treat homes where the impact of fuel poverty tends to be most severe. Since 2011, the Welsh Government has invested over £217 million and improved over 39,000 homes, reducing energy bills and helping households to heat their homes at a more affordable cost.

Our public sector support has provided increased support to accelerate and de-risk energy efficiency and renewable energy projects. Local Partnerships have been grant funded until April 2018 to assist the commercial and procurement aspects of projects. The service builds upon existing technical support provided through Resource Efficient Wales by Carbon Trust. The project pipeline for local authorities alone includes nearly 150 projects with an estimated capital expenditure in excess of £400 million.

The UK Government is also active in this area in a number of areas, including the roll out of smart meters, the development of a major programme to support heat networks, and innovation support through competitions and catapults. We are actively involved in this work, ensuring Wales' needs are considered during development and Wales benefits from its delivery. For example, as a result of our joint work, Bridgend County Borough Council is one of only three local authorities participating in the UK Smart Systems and Heat programme. They are receiving support from the Energy Systems Catapult as well as the UK Heat Network Delivery Unit as they develop two heat networks projects, one investigating using heat from former mine workings.

Financial Implications – None: the actions described are already planned as part of existing programmes and their development.

Recommendation 3

The Committee recommends that Wales must aim to meet all of its energy needs from renewable sources and, in the context of the need to reduce carbon emissions by at least 80% by 2050, set a target date for achieving this.

Response: Accept in principle

We accept this recommendation in principle, as the need to decarbonise our energy system is clear and unequivocal. However, our policy position looks to transition to a low carbon energy system using a diverse range of affordable low-carbon energy generation technologies, including nuclear. Modelling by UK Government and by a range of well informed bodies reflects the challenges inherent in meeting our energy needs from solely renewable resources. We are currently consulting on the proposed National Infrastructure Commission for Wales, and this would help to inform and prioritise investment decisions on medium to longer term infrastructure needs.

The energy trilemma is to achieve energy security from decarbonised energy, whilst keeping costs affordable. We already have a great deal of renewable energy generation in Wales as is the case throughout the UK. Indeed, the current level of solar generation was not expected until late in the next decade. Whilst renewable energy technologies are developing fast, the storage and the smart grids necessary to match this supply with demand, are still being developed. As with all emerging fields, the stage at which this will be achievable and the overall cost is not clear.

As part of our energy pathway work we will develop clearer evidence about the future demand for energy, both electricity and heat. We will also model the costs and impacts of meeting the energy needs of a more prosperous and efficient Wales from solely renewable resources. This will involve considering the impact of necessary levels of generation on the natural resources and landscape of Wales, and its acceptability to people in Wales. This will enable us to develop clearer ambitions for generation in partnership at a local and a national level.

Financial Implications – The full cost to develop this evidence is not currently clear. However, the initial cost to scope the exercise will be met from existing staff and programme budgets.

Recommendation 4

The Committee recommends that Wales must ensure that national carbon emissions and demand reduction targets become local duties. They should be delivered through the framework set by the Well-being of Future Generations Act.

Response: Accept in principle

We accept the principle described within the report that “Public Service Boards will have a significant role to play in carbon reduction and in supporting local community renewable energy projects. Carbon reduction should be a key consideration for the Boards when setting their priorities”.

The Well-being of Future Generations Act places a duty on public bodies to work to improve the economic, social, environmental and cultural well-being of Wales. To do this they must set and publish well-being objectives. These objectives will show how each public body will work to achieve the vision for Wales set out in the well-being goals. Action on climate change is integral to all goals and is specifically referenced as a case which is fundamental to our prosperity going forward and to the resilience of our society.

We will work with public bodies and Public Service Boards, and in deciding how decarbonisation can be delivered at the local level through the assets and the key services that they deliver. However, in line with Well-being of Future Generations principle of involvement, we cannot unilaterally accept the need for the imposition of a duty at this stage.

Financial Implications – The cost of working with partners to decide the accountability for carbon budgets will be drawn from the allocated staff and programme budget.

Recommendation 5

Wales must urgently revise Building Regulations to ensure that all new houses are built to 'near zero' energy standards.

Response: Accept

Reducing the emissions impact of new homes built between now and 2050 remains a priority over the medium term, given up to 30% of the homes which will exist then have yet to be constructed. We are, therefore, committed to the regular review of Building Regulations to ensure we continue to make progress in reducing the climate impact of new developments

In looking to further decarbonise the built environment we need to recognise the economic importance of the house building industry in Wales. Raising standards must therefore be done in a cost effective way so we will work with the industry to ensure we balance the need to reduce energy use in new housing with the need to meet new housing demand.

It is my intention, once the current building regulations sustainability review is complete, to turn our attention again to Part L (conservation of fuel and power), building on the changes we introduced in 2014. I anticipate this work will start towards the middle of 2017.

Whilst the scope of the review has yet to set, one of the issues it will focus on will be delivering against targets set in the EU Energy Performance in Buildings Directive 2010 (Recast), the target of requiring new public sector buildings to be 'Nearly Zero Energy' by December 2018 and all new buildings by December 2020. In setting standards to deliver against that target, we will have regard for the requirement to set standards at a cost optimal level or better.

The European Commission report into the cost optimality of member state standards (based on 2010 standards) was published in Parliament on 10 October 2016. It indicated that at the time of assessment (2012) UK standards, taken as a whole, were at cost optimal levels or better.

As a first stage to inform the objectives of the next review of building regulations, analysis of our current energy efficiency standards (Part L 2014) is currently being prepared for the second member state report on cost optimality. This will inform how our standards and those of the other administrations would have to change to meet the Directive requirement for 'nearly zero energy' new buildings. Discussions over the continued implementation of EU directives in the light of Brexit are ongoing. At this point in time it appears we will remain subject to the Directive when the requirement to achieve 'nearly zero energy' in the public sector by the end of 2018 comes into play.

Whilst progressively raising required standards of performance is important, efforts need to be directed at ensuring what is built matches what is designed. Work by the Zero Carbon Hub has identified a gap in performance in new homes.

<http://www.zerocarbonhub.org/current-projects/performance-gap>.

We will continue to engage with the house building industry over efforts to reduce such gaps.

The Environment (Wales) Act 2016 sets a legal target of reducing emissions by a minimum of 80% by 2050 and places a duty on the Welsh Ministers to set a series of interim targets (for 2020, 2030 and 2040) and carbon budgets. A report must be published for each budgetary period setting out the proposals and policies for meeting the carbon budget for every period. We will undertake periodic reviews of building regulations to ensure standards for new homes plays an appropriate role in meeting those budgets.

Financial Implications – Financial implications will be determined as part of the consideration for future reviews of Part L (Conservation of Fuel and Power).

Recommendation 6

The Committee recommends that Wales must, on completion of a successful trial of SOLCER type homes at scale, move to extending its energy efficiency requirements for new homes beyond ‘near zero’ carbon to a level of efficiency where surplus energy is produced.

Response: Accept

The experience from the Solcer demonstration project and further proposals for housing developments based on Solcer principles under discussion with a number of RSLs and Local Authorities will inform future standards. Any move to the sort of technologies on which Solcer is based must include a robust understanding of the long term implications of those technologies in terms of the household operation, maintenance and replacement and the evolution of the grid and its relationship to decentralised supply.

As discussed in relation to Recommendation 5, in looking to improve performance of new homes we need to recognise the economic importance of the house building industry in Wales. Raising standards must be done in a cost effective way so we will work with the industry to ensure we balance the need to reduce energy use in new housing with the need to meet new housing demand.

Financial Implications – Financial implications will be determined as part of the consideration for future reviews of Part L (Conservation of Fuel and Power).

Recommendation 7

The Committee recommends that Wales must upscale and extend the Welsh Government’s existing retrofitting schemes – NEST and Arbed, adopting a ‘warm zones’ model to ensure a joined-up approach to delivery in areas where badly insulated housing, fuel poverty and poor health coincide.

Response: Accept in principle

In 2016/17, Welsh Government Warm Homes will continue to provide energy efficiency improvements to homes across Wales through the demand-led Nest scheme and grants to local authorities and Warm Zones for area-based schemes.

Welsh Government Warm Homes Arbed has always been focused on delivering area-based energy efficiency schemes and maximising the number of homes improved by a joined up approach. The programme leverages funding from numerous sources, including EU funding, energy supplier obligations and funding from Local Authorities and social housing providers. Arbed is already working with a similar model to 'Warm Zones'.

A consultation process is currently taking place for views on what a future demand-led energy efficiency and fuel poverty scheme will look like for the next five years. This will succeed the current Welsh Government Warm Homes Nest scheme from 1 September 2017.

Officials are working with WEFO to develop an ERDF funded area based scheme, which will potentially run for the next two years with an option to extend for a further year.

Whilst Nest and Arbed schemes are continuing, any decision to upscale and extend the schemes must be considered alongside other funding priorities.

Financial Implications – Increasing the size of the Welsh Government Warm Homes programme would have significant financial implications on the overall Welsh Government budget. There is no indication of the scale the Committee proposed and any increase in investment would need to be considered against other competing priorities. In 2016/17 the capital budget for the programme is £26.5m, and this is expected to reduce in 2017/18, with a proposed budget of £19m.

Recommendation 8

The Committee recommends that Wales must explore linking the cost of stamp duty land tax to the energy performance of a house to start to increase the value of energy efficient homes.

Response: Accept

On 12 September the Cabinet Secretary for Finance and Local Government introduced the Land Transaction Tax and Anti-avoidance of Devolved Taxes (Wales) Bill which will establish a new tax on land transactions in Wales, which will replace stamp duty land tax from April 2018. Following extensive consultation with stakeholders about the content of this Bill and the shape of land transaction tax, the Bill retains key elements of stamp duty land tax. At this stage our focus is to ensure consistency and stability with the existing arrangements which will enable a smooth transition for the property market.

With the devolution of taxation powers we have the opportunity to design Welsh taxes to improve the efficiency and effectiveness of the devolved tax system and to ensure a focus on uniquely Welsh needs and priorities. The Bill is constructed with the flexibility to bring forward changes to the tax over time. In principle the Welsh Government accepts the recommendation to explore this issue, and is committed to considering how we can better design the devolved tax system to meet the needs of Wales.

Financial Implications – None. Any additional costs will be drawn from existing programme budgets.

Recommendation 9

The Committee recommends that Wales must set up an ‘umbrella’ not-for-profit energy service company. Under this umbrella local authorities, city regions or communities can offer energy supply locally.

Response: Accept in principle

We agree there is potential for not-for-profit energy companies in Wales. We are also aware of a number of organisations within Wales already considering or taking action, against a background where the number of energy companies is increasing rapidly. There are now more than fifty providers with a supply licence, some of which have social outcomes at their centre, providing greater choice. However, it is too early to be clear how well the not-for-profit approaches by local authorities work and what benefits are delivered over the longer term. We have carried out some work to scope the impact, likely benefits and risks to establishing a single not-for-profit energy company. This early work shows there are a number of different models, which each deliver different benefits. For example, Nottingham’s Robin Hood Energy was focused on reducing the price of electricity in the area, whereas Bristol’s model focuses on creating a revenue stream for the authority, whilst having some impact on fuel poverty for certain groups.

We have not identified a model successful in supporting new renewable generation, although this could be an outcome from the Energy Local project under way in Bethesda, which we are supporting. However, it is very challenging to obtain a higher price for renewable energy generated at smaller scale at the same time as reducing the cost for bill payers. There is evidence some new energy companies are experiencing difficulties, particularly as they can require a large number of customers to support the business model.

The robust case for a single not-for-profit energy company is not clear from our work to date. Several local authorities are looking at action in this area, although this can be for a very specific activity, for example focused on a district heat network.

We are already working to promote emerging knowledge on different business models and structures. For example, the Energy Systems Catapult has developed smart tools and models to help support development of new business models as part of their Smart Systems and Heat Programme which Bridgend County Borough Council is involved with. Similarly the Heat Network Delivery Unit also has developed some tools to support local authorities and others in the development and supply side of heat networks. We have run events to raise awareness of these in Wales.

We will work with local authorities, other public bodies and social enterprises in Wales to understand what activity is already under way, and the needs and drivers of different actors and regions. Whilst there could be benefit in a single entity, our current work would suggest there is room for a range of entities carrying out different purposes. Our exploration will provide evidence to help define the role of Welsh Government in promoting action in this area.

Financial Implications – Initial scoping work indicates the cost of setting up a domestic/small business supply company is likely to be in the region of at least £2 million, with a further significant capital commitment for energy purchasing. In the case of Bristol, our understanding is that it has taken 10 years for the entity to become a reality with the associated ongoing developmental work involved. The cost of the action proposed in this response can be met from within existing staff and programme budgets.

Recommendation 10

The Committee recommends that Wales must urge the UK Government to enable Ofgem to allow prioritisation of local supply to local users in Wales.

Response: Accept

In our “*Green Growth Wales: Local Energy (2015)*” document we set out the aspiration to see communities and businesses using locally generated electricity and heat, from a range of renewable installations, to supply local demand and to minimise our dependence on central generation. We believe this recommendation is in line with the aspiration and are happy to accept it on this basis.

We have been working with the UK Government, District Network Operators (DNOs) and Ofgem to encourage the development of networks to benefit Wales. Our experience with private wire options explored under the Local Energy service was the cost to build the private wire almost always proved too expensive for commercial viability, particularly at the small scale. We believe the Energy Local project, using the local distribution grid and aggregating generators and users, is an example of the type of project capable of enabling local supply, and allowing the UK Government and Ofgem to understand how to design a regulatory system supportive of more local use.

Through our Smart Living programme we are working with Ofgem, Local Authorities, the DNOs and suppliers to explore the potential for proportionate costs for virtual private wire arrangements. This new option for “sleeving” will add further potential for local use if we can secure agreement from Ofgem. We have made good progress so far, and we need to continue to apply pressure to drive this agenda forwards.

We have already explored some of the challenges in supplying energy in the response to recommendation 9. We agree the requirements surrounding the supply licence are complex and challenging. However, these requirements also provide protection to bill payers. We have been working with Ofgem as they develop a principles based approach to regulation, which could result in some simplification if effectively delivered. We have provided Ofgem with experience from Wales in developing the principle based approach underpinning the Well-being of Future Generations Act, including evidence from NRW’s perspective as a regulator.

We will continue to work with Ofgem, the DNOs, and where necessary the UK Government, on this agenda, in order to increase local generation and use of energy in Wales.

Financial Implications – None. Any additional costs will be drawn from existing programme budgets.

Recommendation 11

The Committee recommends that Wales must have a much greater say over how the grid, Distribution Network Operators and energy companies operate.

Response: Accept

We agree Wales must have a strong voice in the way the UK electricity and gas markets and networks are operated.

The report refers to the need for Distribution Network Operators (DNOs) to move to a Distribution System Operator (DSO) role, more actively managing the complex task of balancing supply and demand through a smart grid. We have recently received the first consultation exercise from a Welsh DNO as it prepares to move towards this function. We will actively feed into this exercise, representing Wales' needs whilst also recognising the DNO's broader geographic territory.

UK Government and Ofgem have developed a consultation exercise on the changes needed to the system in order to enable a smarter energy system, and Welsh Government has provided strategic input to the development of the consultation. We have agreed with Ofgem to run a series of events in Wales to enable stakeholders to input their views, and ensure our perspective is fully reflected.

We have been working with developers and DNOs to resolve issues over local grid access for some time. For example, one small Welsh developer was offered a grid connection for a sub 20 kilowatt micro hydro at a cost of over five million pounds (the cost of upgrading the whole line, as all capacity was committed). We led discussions with the developer and DNO, and provided technical support resulting in an affordable connection.

Working with Ofgem and the DNOs, we have seen the improvements DNOs have made to improving active queue management, and in providing more detailed information to developers. We will continue to work with UK Government to require Ofgem to incentivise DNOs to act proactively to bring together connection applicants to achieve jointly funded upgrades.

We have been working with DNOs to encourage and support them in trialling new ways of maximising their existing networks. Rather than new private wires which drive cost changes, we consider it better to "smarten" existing networks to cope with distributed generation and demand. There are a range of trials under way as a result of Ofgem funding, and we are both supporting trials in Wales and encouraging DNOs to deploy successful methodologies in Wales.

We will continue to encourage DNOs to adopt smarter approaches to their network and support the move to DSO roles by continuing to explore this new area of regulation with Ofgem.

We have also been working with UK Government to achieve clarity on devolution of consenting in relation to the grid through the Wales Bill. We will prioritise the delivery of a consenting regime to support the additional powers we gain through the Bill when enacted.

The Wales Bill also requires Ofgem to provide their annual report to the National Assembly for Wales, and we would encourage the Committee to take this opportunity to scrutinise the way their work supports Wales' needs. In turn, we will take a more overtly proactive role with Ofgem, developing a clearer steer on our priorities for Wales.

In respect of the smart meter roll out, it is a non-devolved programme covering households and businesses in England, Wales and Scotland. Smart Energy GB has been set up to support consumers understanding of smart meters and its benefits. Officials are working with Smart Energy GB, Ofgem and UK government to ensure the needs of Welsh householders are considered in the roll out of smart meters.

Financial Implications – None. Any additional costs will be drawn from existing programme budgets.

Recommendation 12

The Committee recommends that Wales must provide, attract and facilitate financial, technical and research support for energy storage, as part of the wider priority to be given to local energy supply.

Response: Accept

We recognise the impact energy storage could provide in tackling the intermittency of renewable energy generation and helping manage local networks. However the role of storage in the mix of network infrastructure is unclear. Costs are still high as technologies are still emerging and are not yet deployed at scale. There is no regulatory clarity, although the UK Government is addressing this.

Welsh Government officials have already participated in a UK Government and Ofgem workshop on defining electricity storage, along with key stakeholders in the storage industry. The recent evidence given to the UK Energy and Climate Change Committee on electricity storage and the barriers to its development highlighted some of the issues and the support likely to be required.

Storage is likely to be part of the solution within the wider energy system. We already work with Local Authorities, businesses and universities to help progress technology from concept to deployment. Our ongoing work in innovation helps Welsh organisations to access UK innovation funding.

We are encouraging the innovative use of storage in areas such as conversion of electricity into hydrogen for transport and heating uses, demand side response for timing and managing of use of energy, potential uses of electric vehicles as smart batteries and different battery storage opportunities. This work will continue to push the boundaries of existing technology and practice. It will continue to bring knowledge to Wales about developments at the UK level, which will facilitate the wider use of storage within integrated solutions for a smarter energy future.

Financial Implications – The current and future development of initiatives will draw on a mix of funding sources from existing programme budgets and EU funds. It will also require us to access UK Government funds such as OLEV (Office for Low Emission Vehicles) and Innovate UK, Ofgem innovation funding, and private investment.

Recommendation 13

The Committee recommends that Wales must amend planning policy so that it prioritises local and community renewable energy projects and requires the carbon impact of new developments to be a key factor in planning decisions.

Response: Accept in principle

Our national planning policies, contained in Planning Policy Wales (PPW), are supportive and positive towards renewable and low carbon energy projects at all levels. Two of the objectives for the planning system, as set out in PPW, are the planning system should “play an appropriate role to facilitate sustainable building standards (including zero carbon) that seek to minimise the sustainability and environmental impacts of buildings” and to “maximise the use of renewable resources”.

Planning decisions are based on an assessment of the impact of a development proposal on its surrounding environment and communities, balancing these against the need to increase our supply of energy from renewable sources and the positive economic benefit from moving towards a low carbon economy. This assessment is irrespective of the nature of the developer.

I recognise local and community renewable energy projects do need assistance when navigating the planning system and my predecessor, the Minister for Natural Resources, wrote several times to local planning authorities asking for this assistance to be forthcoming. Education and training for local authority officers and members is also important for them to properly assess applications for smaller renewable energy projects. Earlier this year the Energy Saving Trust was commissioned to provide such training. Six training sessions were held with a total of 63 people attending.

Our Local Energy service also provides community led developments with the consultancy and funds they need to access the planning system on a similar basis to commercial developers.

I will continue to support local and community renewable energy projects and my planning officials will monitor this situation to see if any further specific support can be offered to supplement our positive national policies.

Financial Implications – None. Any additional costs will be drawn from existing programme budgets.

Recommendation 14

The Committee recommends that Wales must deliver their previous recommendations about streamlining planning and permitting processes in full.

Response: Accept in principle

I recognise the need to streamline the planning system and through the enactment of the Planning (Wales) Act 2015 we have already made significant changes to the planning system to make it more efficient.

The Developments of National Significance (DNS) regime is now in operation whereby developments over 10MW will now be determined by Welsh Ministers. I consider such projects make an important contribution to the energy mix of Wales and timely decisions on such projects are vital to Wales meeting its renewable energy targets.

We are in the process of developing our National Development Framework (NDF) which will set out our land use priorities and I expect it to integrate our existing area and location specific policies such as Strategic Search Areas (SSAs). If it is to be effective, the NDF will have to provide the development plan context for Welsh Ministers to make decisions on DNS.

My officials are also currently examining the potential to create a common methodology across Wales for assessing the ability of different landscapes to accommodate renewable energy developments (including wind and solar). This will try to ensure consistency in the consideration of landscape and visual impact issues.

At the local and community scale, we have also recently published research on non-domestic solar panel installations and officials are working with Natural Resources Wales to examine the impacts of very small hydro-electric schemes. Both of these projects will feed in to a review of the Permitted Development Rights which will be subject to consultation next year. This could potentially remove the need for planning permission altogether from these developments.

Natural Resources Wales has a principal role in planning and permitting, and I and my predecessors have been clear about the need for continuous improvement. NRW is a statutory consultee in the town and county planning system, and provides advice to developers and determining authorities on the likely environmental and natural resource effects from a proposed development. NRW currently responds to around 7,000 development planning consultations per year. NRW aims to respond to 90% of all consultations within statutory or agreed deadlines, and last year the organisation responded to 91% of development planning consultations within statutory or agreed deadlines. This has been achieved by introducing structural changes within NRW's national planning service, developing new internal guidance, providing training to staff, and implementing a new ICT system to support staff responding to development planning consultations. NRW are also looking at ways to improve the information available online to applicants to support them to make informed decisions.

NRW has recently undertaken a customer satisfaction survey to help them better understand how advice is used. A summary report outlining the main findings and actions for improvement will be published during Autumn 2016.

NRW has established a Development Planning Advice and Strategy (DPAS) Board to provide a strategic steer to their national planning service. The DPAS Board leads on the delivery and continuous improvement of NRW's development planning service. It is focused on developing products, guidance and procedures for DPAS Teams in relation to the delivery of the Business Area Review, the Planning (Wales) Act, the Environment (Wales) Act and the Well Being of Future Generations (Wales) Act. NRW is currently developing a joint improvement project with local planning authorities to help deliver a more effective and efficient planning service.

NRW has also established an Energy Advisory Board (EAB) to provide an integrated strategic steer across the range of responsibilities NRW undertakes in relation to energy matters.

There has also been substantial improvement with regard to NRW's role in hydropower. NRW continue to improve licensing processes for hydropower abstractions and impoundments to ensure that they are efficient, proportionate and delivered with a high standard of customer service. This involves working with stakeholders from government, industry and environment. NRW continues their current programme to develop micro-hydro generation on the Welsh Government forest estate. NRW have participated in the Hydropower Task and Finish Group with Welsh Government and the British Hydropower Association, and its recommendations will provide the context for further improvements to NRW's work in support of hydropower in Wales.

Financial Implications – None. Any additional costs will be drawn from existing programme budgets.

Recommendation 15

The Committee recommends that Wales must establish a loan scheme, similar to the CARES loan scheme in Scotland. Welsh Government should work with Community Energy Wales to deliver the scheme.

Response: Accept

Whilst I agree that grant and loan funding is essential for community energy projects to thrive, it is unfortunate the Environment and Sustainability Committee has not identified the extent of the long term provision we have made in Wales.

We have provided continuous support since 2010 to community energy schemes. The loan fund has been in operation for some years, and we were disappointed community projects were not in a position to draw down the significant loan funding available from the previous ERDF funded project. My predecessors made further funding available to provide continuity of support. Since 2010 the Welsh Government has offered over £7 million in capital grant and loans to renewable energy schemes.

In January 2016 the Local Energy service was launched, widening the remit of previous support to include support for SME projects delivering local benefit. The Local Energy recirculating loan fund is administered by Finance Wales to provide capital and revenue development loans to local small scale renewable energy schemes.

I am disappointed the Committee did not recognise the advantages of the support provided in Wales, which is more generous in grant terms than the CARES fund in Scotland. In Wales too, we have taken a more proactive approach and have accepted more of the risk that communities are less equipped to take on.

We have piloted a number of innovative approaches to supporting local ownership of developments. In order to speed up development we have provided grants so groups can employ project delivery staff, speeding up delivery. We have also provided capital where commercial funders will not. Examples of where we have taken these proactive approaches are set out below. I am not aware of other UK administrations offering such a comprehensive and responsive service.

We provided a substantial loan to Carmarthenshire Energy Ltd to enable them to buy a small scale wind project from a local developer. The loan offer enabled the group to take up the opportunity at short notice, and raise both a share offer and commercial finance to complete the build. The money will return to the local energy fund, freeing it up for future investment.

I also lent over £3.5 million to Awel Aman Tawe to bridge the gap in construction costs and enable them to build out their 4.7MW wind project, due to provide several million pounds of income to the Upper Amman Valley over the next twenty years.

I agree all levels of government should play a key role in helping community projects. I understand some Local Authorities are doing some excellent work in this regard, and we will encourage others to do the same

We have established a Partnership Portal to encourage local authorities, developers and others to work with communities to help to support local energy schemes. We will work with all concerned to understand what support is needed in order to enable more shared ownership projects at all scales.

My officials worked closely with Community Energy Wales in developing the Local Energy service and loan fund. Our delivery support is procured through an open and compliant process, and we would encourage Community Energy Wales and other organisations with knowledge of the industry to bid for future contracts.

The situation is now very challenging for new projects as a result of the reduction in UK Government subsidies. We are working with UK Government to understand their future intention in respect of the Feed-in Tariff scheme. When launched this scheme included objectives to increase local engagement with and support for renewable energy. We will work with UK Government to understand how local developments can access any available future support such as market mechanisms, and identify what support they may need to do this. We are also exploring how projects might work beyond subsidy, though this appears challenging in the current market.

Financial Implications – The current level of service can be met within current programme budgets.

Recommendation 16

The Committee recommends that Wales must maximise all sources of funding. This includes making the best use of European funding.

Response: Accept

Creating a stable, positive investment environment is key to our support for energy projects. The Welsh Government has to act innovatively with our funding solutions to overcome the current challenging financial environment due to the reduction in UK Government subsidies. We have demonstrated this through our bridging loan support to Awel Aman Tawe to build their community wind turbines, and our zero-interest funds for public bodies in Wales: Invest to Save - Green Growth and Salix Finance. We are investing heavily in developing and financing energy efficiency projects in the public sector as these reduce emissions create economic growth and help to reduce energy costs for frontline delivery bodies.

Responses to the Green Growth Wales: Investment Support consultation showed the broad range of investment support available was widely supported by stakeholders. Continued innovation and flexibility to respond to the fast changing market remain our approach. The evidence underpinning our Green Growth Wales work was clear: the largest benefit from low carbon energy projects was from making the investment. Maximising the level of Welsh investment in Welsh projects is important to us in order to get the most from these projects.

We have identified a substantial pipeline of energy efficiency and renewable energy projects across Wales. Whilst not all of these projects will be completed, it demonstrates a level of ambition far exceeding the Welsh Government's budget to invest. All viable sources of investment and funding will be explored. We are providing expertise to public bodies and community energy groups to enable them to identify and secure this investment.

Within this context, a significant opportunity exists to maximise the benefits of EU funding available to support low carbon energy and emission reduction projects and home energy efficiency schemes. There are two Specific Objectives in the West Wales and the Valleys Programme and the East Wales Programme; small-scale renewable energy and energy efficiency in existing Welsh housing stock where the household is facing severe fuel poverty.

We have already referenced the development of an EU funded area-based home energy efficiency and fuel poverty scheme to succeed Arbed 2 ERDF. The new scheme, if approved, will start in 2017 and will focus on tackling fuel poverty by improving the energy efficiency of homes in areas where people are at risk of severe fuel poverty.

We have worked with renewable energy projects meeting the requirements of the community energy objective. The funding is focused on demonstrator projects providing local supply without access to UK Government tariffs. Most projects in development find the existing tariffs offer a better business case than grant funding, although some projects are interested in the available funding.

In July, Welsh Government, working with Local Authority Groups in South East Wales and WEFO, facilitated a half day workshop to bring together a mix of public and private sector players to stimulate projects suitable for WEFO funding. This initial workshop identified opportunities for partnership and stimulated dozens of project ideas. The workshop was repeated in October in North Wales.

Welsh Government's Green Growth Wales team were successful in securing £1.5m of grant funding from the European Investment Bank's European Local Energy Assistance (ELENA) Programme to implement the Re:fit Cymru service, which assists the public sector in Wales deliver estate-wide energy efficiency retrofit.

UK Innovation funding is generally highly competitive. Welsh Government regularly promotes and works with organisations to access funding, for example bringing together a consortium. We have also been successful in co-funding. SPECIFIC, a collaborative research programme to develop technologies to enable buildings to operate as their own power stations, is an initiative funded by EPSRC, Innovate UK, WEFO ERDF and Welsh Government. We continue to support organisations in Wales to participate and draw in UK support.

Our Welsh Government Warm Homes programme has been designed to enable investment to be levered in from other funding sources, such as the Energy Companies Obligation (ECO), Local Authorities and Registered Social Landlords (RSLs). Since 2011, the Nest scheme alone has levered over £10 million of additional funding from energy supplier obligations into Wales.

Financial Implications – Existing work is funded within programme budgets. Further new and innovative funding solutions will be developed where opportunities allow.

Recommendation 17

The Committee recommends that Wales must provide ‘hand holding’ support and advice for local and community projects to secure the necessary funding for local and community energy developments, alongside wider project development support.

Response: Accept

I agree with the principle behind the recommendation. Certainty is necessary to bring forward new energy development. I have written to the UK Government to urge them to ensure access to price certainty for renewable generation, in order to bring forward both low cost generation from wind and solar developments and emerging technologies, including marine and heat.

Welsh Government has provided certainty, continuing the support to local energy projects beyond the end of the 2007-2013 ERDF programme in 2015, and making both development and construction support available from Welsh Government funds. The Local Energy service, launched in January 2016, provides ongoing support for projects, and has continued to support communities to think about access to capital funding at a very early stage.

Learning from the early years of support is embedded in the service. The Wales Council for Voluntary Action, who have a strong track record in working with social enterprises on finance, provide support to social enterprises under the Local Energy service. WCVA uses this knowledge to make sure projects are structured with the needs of commercial financiers in mind. They support projects to find commercial and social finance and have built strong relationships with a range of investors. The service also funds communities to run share offers, which is proving a successful source of quite significant capital funding.

The service is proactively working with communities to identify any projects viable without subsidy, although this is very challenging for small scale projects. Our modelling indicates we would need to provide grants for more than 70% of construction costs in order to make projects viable. We are therefore trying to identify ways of improving the business case to ensure projects continue to be built. This includes finding the best sites, and looking to match them with communities who could benefit from developing the project.

We will continue to offer support through our development service, access to development and construction finance, and support to work with funders including European programmes, private and charitable funders. We are helping communities explore whether setting up supply companies can provide access to a higher rate of return than selling electricity into the grid. We are also working with developers to encourage collaboration with communities who may wish to invest in larger projects. This can allow them to benefit from local generation without themselves having to learn to be developers.

We will continue to work with local energy projects to ensure the aspirations set out in “*Green Growth Wales: Local Energy*” (2015) are realised.

Financial Implications – The current level of support can be met from within existing programme budgets.

Recommendation 18

The Committee recommends that Wales must provide policy certainty as this will create skilled jobs and increase training opportunities. This certainty will increase confidence in industry and the skills providers that investing in training will pay off.

Response: Accept

I agree long term policy certainty is necessary to create the skills and supply chains within the Welsh economy needed to support a smart energy future. In Wales we have continued to provide certainty of direction as set out in *Energy Wales*. We recognise the need for transition to a low carbon energy system in a timescale that enables us to meet decarbonisation targets. We also recognise the need to maintain economic prosperity, and this means supporting the development of new jobs in clean energy generation.

We have called on the UK Government to provide certainty on funding for future energy generation, which can deliver jobs from decarbonisation if the right long term decisions are taken. We will continue to raise this issue with Whitehall and consider further action if we have concerns UK wide mechanisms will not support our aims and ambitions for Wales. In the interim we will use all opportunities to push for pilot demonstrators in Wales to underpin the arguments to help inform deliberations on required governance and regulatory changes needed for Wales and the UK to flourish.

The Programme for Government – Taking Wales Forward 2016-21 sets out the Government’s priorities for the next five years. Key skills priorities are:

- To support people seeking the employability skills needed to get quality jobs.
- Creating a minimum of 100,000 apprenticeship opportunities to support individuals and to help employers in growing their businesses.
- Promoting, encouraging and enabling innovation and connectivity - our key drivers for economic growth and job creation, across the whole economy.

The direction set by the Policy Statement on Skills (published January 2014) remains valid given the long-term challenges for Wales remain, namely those of raising overall skills levels, engaging more employers to invest in training, improving routes into higher learning and supporting people into better paid employment.

Regional Skills Partnerships (RSPs) are at the centre of our Skills Policy. Over the next five years, the Welsh Government plans to deliver a post-16 learning environment which remains fit for purpose and sets Wales ahead of other nations of the UK and internationally. Crucially, regional skills delivery remains a key policy focus going forward and is part of a growing agenda set against a context of a strengthened UK Government-driven, regionally focused skills landscape, involving City Region deals and Growth Bids.

Annual regional employment and skills plans, produced by the three Regional Skills Partnerships, will drive planning decisions for providers and provide a critical evidence base from which to make skills investment decisions. This approach is providing the mechanism to enable Welsh Government to align regional skills provision to investment and growth opportunities, including the priorities identified by Enterprise Zones, City Regions/Growth Bids and cross border collaborations.

An opportunity now exists for employers from the energy sector to engage fully with Regional Skills Partnerships to ensure the skills needs of the sector are discussed in full during the development of regional plans.

Financial Implications – None. Any additional costs will be drawn from existing programme budgets.

Recommendation 19

The Committee recommends that Wales must develop local supply chains to support renewable energy technologies and energy efficiency measures.

Response: Accept

I agree the need to develop local supply chains for energy efficiency and renewable energy as a positive solution to the pressure on high carbon jobs. We recognise the transferable nature of the skills required for the energy sector. This will be important as we support those currently employed in high carbon generation to develop the skills to move to the emerging jobs in low carbon and renewable energy generation, storage and management.

Demand for skilled staff is driven locally, and is strongly related to the economic opportunities available. Skills provision will not happen without demand from employers, which needs a pipeline of skilled work. This labour market information and intelligence is being captured in annual employment and skills plans produced by the three Regional Skills Partnerships.

We have supported considerable development of skills in energy efficiency technologies through our energy efficiency programmes, and recently held supply chain events related to the pipeline of public sector projects developing as a result of our Green Growth Wales support.

All of the energy efficiency improvements installed under the Welsh Government Warm Homes schemes have been delivered by Wales-based SMEs. Our Warm Homes Arbed 2 ERDF scheme alone created 470 jobs including 40 new apprenticeships throughout the supply chain, from logistics to administration and surveying to project management and 66 placements provided under the LIFT programme. We will continue to offer these opportunities under Warm Homes schemes as they form an important part of the community benefits delivered by the programme.

We have been successful in developing courses for skills in renewable energy at Coleg Menai in relation to the development of the Gwynt y Mor offshore wind farm. We are also working with Horizon and Coleg Menai along with other strategic partners regarding the development of Wylfa Newydd.

At the end of 2015, Wales had an onshore wind capacity of approximately 639MW, approximately 7% of the UK total. A report commissioned by Welsh Government, onshore wind developers and Renewable UK Cymru concluded if 2,000MW of capacity could be developed by 2025, this would deliver up to £2 bn to the Welsh economy and support over 2,000 jobs for the lifetime of the projects. We have developed a methodology for engaging with companies and have had notable success with Vattenfall's Pen y Cymoedd development. To date £45 million pounds' worth of contracts have been let to Welsh businesses in delivering this wind farm.

A new nuclear build on Anglesey will employ up to 6,000 people on site at the peak of the construction period of 3 to 4 years. Once operational in the second half of the 2020s there will be up to 1,000 permanent jobs for its estimated 60 year lifespan.

Marine technology and project developers have already spent £34.5 million in Wales, directly creating over 99 person years of employment, rising to 174 person years when including Welsh academic research.

Once constructed, up to 181 jobs would be created or supported by the Swansea Bay Tidal Lagoon. An economic impact assessment by the company estimates the annual impact of the lagoon could amount to approximately £76 million per year. The developer is aiming for 50% Welsh content and 65% UK content.

There is significant potential from other developments such as heat projects. The UK Government has allocated over £320 million for heat networks projects over four years. Welsh Government has held events to help suppliers input to these proposals, and to support project development to maximise the amount of funding coming to Wales.

We will continue to work across sectors to stimulate the development of skills. The work at the University of South Wales is a classic example, where the focus is on the potential of hydrogen as a fuel. Smart Living developments are creating a need for skills in different sectors to be brought together – hydrogen and battery storage both unite skills from energy and transport, to give one example.

We will continue to work with Regional Skills Partnerships to identify the skills required and to help shape provision to meet the skill needs of the supply chains in Wales.

Financial Implications – None. Our work to support skills and supply chains is met from existing staff and programme budgets.

Lesley Griffiths

Lesley Griffiths
Cabinet Secretary for Environment and Rural Affairs