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## NFU Cymru Response – Call for Evidence – Welsh Carbon Budgets

NFU Cymru welcomes the opportunity to respond to the Committee on Climate Change Call for Evidence on Welsh Carbon Budgets, specifically the emissions accounting framework, scope of the targets and the role for emissions trading.

NFU Cymru champions Welsh farming and represents farmers throughout Wales and across all sectors. Our vision is for a productive, profitable and progressive Welsh agricultural industry and our aim is to establish the background conditions in which farm businesses can be profitable and develop.

The importance of the farming industry in rural Wales cannot be over-stated. Welsh farming businesses are the backbone of the Welsh rural economy, the axis around which rural communities turn. The raw ingredients that we produce are the cornerstone of the multi million pound Welsh food and drink industry which is Wales' largest employer employing over 222,400 people.

Welsh farmers also play a key role maintaining and enhancing our natural environment – Wales' key asset. Farming activity supports a diverse range of species, habitats and ecosystems, provides a range of ecosystem services including flood alleviation, carbon sequestration, climate change mitigation; and delivers the significant backdrop for Wales' tourism and recreation sector worth an estimated £2.5bn annually.

Overall Welsh farming makes a unique contribution to the social, economic, environmental and cultural well-being of Wales in line with the Well-Being of Future Generations Act summarised in Annex 1.

### Agricultural emissions

Scientific evidence amassed so far indicates that there is an ultimate limit to GHG reductions from agriculture, bearing in mind the physical and biological constraints of what will remain a predominantly outdoor production process as well as consumer concerns about the shape of the countryside. Consequently agriculture may face a steeper trajectory of GHG emissions reduction after 2030 but additional mitigation measures will be fewer in number with generally less certainty about their applicability or mitigation potential. Rapid attention should be given to the recently published 2030 Climate and Energy package proposals for agriculture and land use which risk putting Welsh (and UK) agriculture at a disadvantage compared with some of its competitors like Ireland.

It is important for Welsh carbon budgets to reflect practicable but stretching interim goals as long as production sectors are incentivised to lead without being placed at an unreasonable competitive disadvantage. An economic assessment of GHG mitigation policy options for EU Agriculture by the JRC considers a range of policy options to reduce emissions from EU agriculture by up to 28% by 2030. The report highlights that mandatory targets reduce herd size, yield and crop acreage (for fodder) with the beef sector hit hardest. In addition the EU's trade balance is projected to worsen for

almost all products. However increases in productivity make up some of the difference between supply and demand. The report's conclusions include the statement that "the more flexible the mitigation policy instruments are implemented, the less are the production effects on an aggregated EU level and hence also any potential emissions leakage effects".

We take this opportunity to highlight that there is a lack of monitoring of measures that mitigate GHG emissions from Welsh agriculture. The majority of emissions accounted for by the Agriculture Inventory are in the form of methane from enteric fermentation in ruminant livestock and from slurry/manure stores and nitrous oxide from application of manufactured nitrogen fertiliser and from slurry/manure applied and deposited. Key opportunities for mitigation occur through reducing the GHG intensity of Wales's agricultural production (i.e reducing GHG per unit production); protecting existing stores of carbon on farm (trees, soils with high organic matter which are currently accounted for in another part of the Inventory); off-setting operations by increased C sequestration and on-farm energy generation.

### Land-based renewables

With over 80% per cent of national land area in the agricultural sector, NFU Cymru members have a significant interest in land-based renewable energy production, where they can benefit directly as energy producers themselves or as hosts for energy plant developed by others. NFU Cymru in collaboration with the other UK farming unions have shown the huge potential of land-based renewables to deliver clean energy to contribute to energy security, diversify farm businesses and bring additional benefits to the economy, society and the environment.

We believe that domestic land-based renewable energy can deliver up to a quarter of UK clean energy needs by 2020, faster and cheaper than many other low-carbon energy options. We see the emerging bio-economy as part of the global transition from a 20th-century fossil-fuel based culture to a 21st-century sustainable system. We believe that farmers can make more effective use of the substantial land-based renewable energy and material resources available in Britain. Photosynthetic primary production offers one of the largest and most flexible renewable resources, providing the raw materials for a wide range of bio-based products, including food, feed, fibre and many different kinds of fuels. Bio-based renewables are particularly intimately tied into agricultural operations, since they involve the integration of cropland for non-food as well as food purposes, as well as the mobilisation of agricultural residues and the recovery of organic nutrients.

More credit should be given for agriculture's potential to decarbonise the rest of the economy through land-based renewables. Both of the likely lowest-cost renewables in the next decade (onshore wind and solar) are being deployed extensively in the agricultural sector.

We recognise that well-managed production systems contribute to enhanced carbon storage in end-products, vegetation and soils. Bio-based industries such as transport biofuels are already growing rapidly worldwide, and international trade in densified bioenergy feedstocks (pelletised and torrefied agricultural residues, wood and energy crops) will also become increasingly important in the next decade. In the longer term, other new decarbonisation services will emerge such as carbon capture from energy and industrial processes, offering 'negative emissions' where coupled to biomass-derived carbon dioxide (so-called BECCS).

### Question 1 Is it better for carbon budgets to be set on percentage or absolute terms, given that the interim targets are set as percentages?

Expressing carbon budgets on percentage terms would appear sensible and allow for shifts in inventory and the 1990 baseline.

**Question 2 What else can be done to make targets resilient to future revisions to the greenhouse gas inventory?**

It is our view that using percentage as opposed to absolute terms within carbon budgets will assist, however, there is a need to recognise that developments in scientific understanding will continue to impact on the baseline figures. Clear communication and transparency throughout the reporting process is required.

**Question 3 What is the role of the EU ETS or other trading schemes in contributing to Welsh emission reductions and could this differ between sectors (power, industry)?****Question 4 Given that UK carbon budgets cover all of Wales's emissions and are set on a net basis, does this influence how accounting should be approached for Welsh climate targets?**

Given the significance of the power and industry sectors within Wales, the EU ETS trading sector makes up a far greater proportion of total emissions (56%) than the UK average. Whilst we recognise that the policy levers available to Welsh Government currently have very limited influence on emissions from EU ETS installations, there is an argument that Wales should take responsibility for all its emissions. Omission of EU ETS from carbon budgets in Wales could result in an undue focus on non-EU ETS sectors. The importance of Welsh food and farming to the economic, environmental, social and cultural well-being of Wales is set out in Annex 1 of this document.

NFU Cymru believes that all sectors require support and incentivisation towards decarbonisation.

**Question 5 Given the UK context, should the design of Welsh targets and budgets reflect devolved competence?**

There is a concern that such an approach would lead to unrealistic pressure being placed on those sectors within devolved competence and there is an argument that Wales should take responsibility for all its emissions.

**Question 6 Are there any competitiveness implications for current traded sector business (e.g industry) in having gross emissions targets in Wales, and if so how could they be minimised?**

NFU Cymru identify potential competitiveness implications for all sectors in Wales as a result of carbon budgets irrespective of whether they are EU ETS or non EU ETS sectors. As stated above all sectors require support and incentivisation.

**Question 7 What is the role for purchase of international offset credits to supplement action to meet Welsh emissions targets?**

NFU Cymru believes that Welsh emissions targets should not be achieved through reduced production in Wales and increased reliance on imports. Whilst such imports would not be included within carbon budgets and targets for Wales, such a practice would effectively 'export' production related emissions. An over-reliance on such an approach would not be in line with the aspiration of being a 'globally responsible Wales' as enshrined in the Well-Being of Future Generations Act. It is also important that Wales does not become over reliant on overseas production given the potential risks to food production globally as a result of a changing climate.

**Question 8 In principle, should international shipping be included within Welsh emissions targets, and if so are there any practical difficulties with doing so?**

No comment

**Question 9** In principle, should international aviation be included within Welsh emissions targets, and if so are there any practical difficulties with doing so?

No comment

## Annex 1 - The Contribution of Agriculture to the Well-Being of Wales

The Welsh Government Well-Being of Future Generations (Wales) Act 2015 is designed to improve the social, economic, environmental and cultural well-being of Wales. The Act establishes seven goals that all public bodies, including Welsh Ministers, must work to achieve. The contribution that farming makes to achievement of all seven goals is unparalleled by any other industry, as highlighted in the following below:

Well Being of Future Generations Act:	NFU Cymru: Agriculture is the Answer
Well-being Goals	
<b>A prosperous Wales</b>	<ul style="list-style-type: none"> <li>60,000 employed full or part time in farming in Wales</li> <li>£1.5bn Gross Output</li> <li>Farming underpins a food supply chain worth over £6bn</li> <li>Over 220, 000 people in Wales are employed in the agri-food sectors – that's 17% of the workforce and Wales's biggest employer</li> <li>The Welsh countryside managed by farmers provides the backdrop for the tourism industry worth over £2.5bn</li> <li><b>The Welsh agricultural industry is a key generator of wealth and employment for the people of Wales</b></li> </ul>
<b>A resilient Wales</b>	<ul style="list-style-type: none"> <li>Farmers care for 81% of total land area of Wales – that's over 1.84m hectares</li> <li>600,000 ha of environmentally designated areas</li> <li>Almost 560,000 ha managed under Glastir Entry Sustainable Land Management Scheme designed to combat climate change, improve water management and maintain and enhance biodiversity</li> <li>Farming supports a diverse range of species, habitats and ecosystems</li> <li>Farmers provide a range of ecosystem services including carbon sequestration and management, water quality and water quantity management for flood alleviation</li> <li>Low carbon, local energy installations have the potential to meet 57% of Wales's electricity consumption and the evidence shows a large proportion of projects are located within Wales's rural local authorities</li> <li>GHG emissions from agriculture have declined by 20% since 1990 and further decreases are being achieved through production efficiency measures</li> <li><b>Welsh farmers play a key role maintaining and enhancing our natural environment and supporting the provision of a full range of ecosystem services</b></li> </ul>
<b>A healthier Wales</b>	<ul style="list-style-type: none"> <li>Welsh agriculture is a key provider of safe, nutritious, high quality Welsh food which plays a fundamental contribution in supporting the physical and mental well-being of the people of Wales</li> <li>Welsh farmers are known to operate to some of the highest standards of welfare and production in the whole world</li> <li>Welsh farming also delivers a significant proportion of Wales's access provision which includes 16000 miles of footpaths, 3000 miles bridleways, 1200 miles of cycle network, and 460,000 ha of open access land</li> <li><b>Welsh farming makes a key contribution to the physical and mental well-being of the people of Wales</b></li> </ul>
<b>A more equal Wales</b>	<ul style="list-style-type: none"> <li>Rural Wales is home to 33% of the Welsh population.</li> <li>The vitality and potential of rural areas is closely linked to the presence of a competitive and dynamic farming sector. The</li> </ul>

	<p>NFU Cymru 'Why farming Matters to the Welsh Economy' shows that each family farm is typically economically linked to some 40-80 other businesses in the region</p> <ul style="list-style-type: none"> <li>• <b>Through direct and indirect employment in rural communities, Welsh farming underpins the rural economy and contributes to a more equal Wales</b></li> </ul>
<b>A Wales of cohesive communities</b>	<ul style="list-style-type: none"> <li>• Local communities in rural Wales are heavily dependent on agriculture for financial and social prosperity.</li> <li>• Leadership and voluntary roles in rural communities</li> <li>• <b>Welsh farmers make a key contribution towards the provision of attractive, viable, safe communities in rural areas</b></li> </ul>
<b>A Wales of vibrant culture and thriving Welsh language</b>	<ul style="list-style-type: none"> <li>• Agriculture has the highest proportion of Welsh speakers of any sector.</li> <li>• Farming is the bedrock of rural communities across Wales which have been shaped by farming activity spanning hundreds of years. Farmers continue to maintain these traditions, preserving rural culture and sense of place</li> <li>• <b>Welsh farmers are key promoters and protectors of our culture, heritage and the Welsh language</b></li> </ul>
<b>A globally responsible Wales</b>	<ul style="list-style-type: none"> <li>• Current levels of self-sufficiency at a UK level are at 62%</li> <li>• Future challenges to our global food production system include climate change, a growing UK and global population, water scarcity. Given its climate and rainfall, Wales is predicted to be an area of favoured production in the future</li> <li>• <b>Welsh farmers have a key role to play feeding the people of Wales and in contributing to global food security now and in the future.</b></li> </ul>