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Llywodraeth Cymru
Welsh Government

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Dear Mike

Thank you for your letter of 13 November in which you set out a number of questions regarding the Climate Change (Wales) Regulations 2018. I am pleased to provide the Climate Change, Environment and Rural Affairs Committee with the following information to inform your scrutiny of the Regulations.

Question 1: What will be the effect if the Assembly does not agree the Climate Change (Wales) Regulations 2018 in Plenary?

The Environment (Wales) Act 2016 was purposely designed to set the legislative pathway for emissions targets as soon as reasonably possible to drive action. If the Assembly does not agree, it would cause a significant delay. We would not be able to effectively develop and publish a Delivery Plan. This will cause uncertainty and clarity for others such as stakeholders who have been involved in the process, as well as diverting resources.

Although there would be no effect on the 2050 target as this is set out in the Act, sections 30 and 31 of the Act place a duty upon the Welsh Ministers to set interim targets for 2020, 2030 and 2040 and the first two carbon budgets in regulations before the end of 2018. In the event of the Assembly not approving the draft regulations setting interim targets and budgets 1 and 2, the Welsh Ministers would be in breach of the duties contained within those provisions.

Moreover, delay in setting the first carbon budget could lead to a delay in the publication of our report setting out the Welsh Ministers' policies and proposals to meet it. Section 39 of the Act requires a report is published as soon as reasonably practicable after the setting of the first carbon budget. Recognising stakeholders wanted action we have currently scheduled the plan for publication in March 2019.

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If the draft Regulations are not approved in Plenary, we may need to seek further advice from the Committee on Climate Change, causing further delays before returning to the Assembly. Our focus must now be on action.

Question 2: Can you confirm the levels of reductions that will be delivered by each of the four options contained in your Regulatory Impact Assessment, expressed as a percentage reduction below the baseline?

Accurately projecting future emission pathways and the impact of specific policies and proposals upon them is challenging and highly uncertain, especially for long-term projections out to 2050. There is a wide variety of approaches to constructing emissions projections and additional uncertainties are introduced when comparing and contrasting different models which are based on different assumptions and scenarios.

To test the recommendations of the CCC and to provide further detail to inform our RIA we developed a Wales-specific emissions projection tool (the Wales 2050 calculator). This is under continual development and refinement within government to ensure we have the best possible insight into future emissions pathways. Although it looks at emissions in a different way it has provided a valuable gauge against which to test the CCC's scenarios and has produced results which are broadly consistent with those produced directly by the CCC.

Within the RIA, Option 1 through the model (BAU baseline) achieves a 2050 reduction of 46% below 1990 levels and would clearly not deliver a reduction consistent with our statutory 2050 target. Options 2 to 4 achieve reductions in the order of 77-78% below 1990 levels and given the significant uncertainties highlighted, especially when translating between the different modelling approaches adopted by the CCC and the Welsh Government, are considered to be within a range which supports the expert analysis provided by the CCC in their advice.

On this basis we are confident legislating for the pathway recommended by the CCC provides the most achievable low-carbon transition pathway for Wales to meet its statutory obligations, providing the best balance between costs and our well-being goals and objectives.

Question 3: Are you content that your proposed approach strikes the right balance between achievability and ambition, given that it will not meet the aims of the Paris Agreement, according to the advice of the UK CCC?

The CCC suggests UK greenhouse gas emissions will need to reduce by 71-83% in 2050 for global average temperature rise to remain below 2°C. Although it is for the UK as a whole to contribute to meeting the aims of the Paris Agreement, we recognise Wales has a role and this is why we are putting in place legislative action.

The Regulations, are responding to the requirement in the Act for us to establish a pathway to reaching the 2050 target with our interim targets and carbon budgets. The Act already requires us to meet at least an 80% reduction in Wales by 2050 and was established in primary legislation in 2016. Therefore the 2050 target is not in scope.

Our proposed approach adopts the targets recommended by the CCC, who are required to consider international agreements relating to climate change when preparing their advice as well as a number of other areas such as the Well-being of Future Generations Wales Act. Wales' emissions profile is very different to the rest of the UK nearly 60% of our emissions come from heavy industry and electricity generation (referred to as the 'traded sector' under the EU Emissions Trading Scheme) compared to 36% for the UK as a whole.

The CCC suggests an 80% reduction for the UK implies a 76% reduction in Wales. By adopting a 2050 target of 'at least 80%' we are arguably making a proportionally greater contribution to the Paris Agreement than the UK as a whole. Accordingly our proposed approach provides the best balance between achievability and ambition, given Wales' emissions profile.

I have written to the UK Minister of State for Energy and Clean Growth to approve a joint commission for advice from the CCC in relation to how the evidence in the IPCC report might affect our long-term emissions reduction targets. Whilst our focus now is rightly on the action to deliver our low carbon objectives.

Question 4: Will you give a commitment to reconsider the 2050 target before setting future carbon budgets; that you will do so based on the advice of the UK CCC; and report back to the Assembly on your decision?

We expect to receive the CCC's advice on our long-term targets in April next year. We will consider this advice and its implications for our statutory framework and report back to the Assembly before setting the third carbon budget. We will also consider the other sources of evidence described in the Environment (Wales) Act 2016.

Question 5: What are your current projections for the level of emissions levels in 2020?

The CCC has undertaken in-depth pathways analysis to develop their recommendations on the appropriate level of targets and budgets. The CCC bases their 2020 pathway on the assumption it should be met through existing policies. Therefore, all three CCC pathways (76%, 80% and 85% in 2050) show the same emission reduction achievement to 2020 and the scenarios only start to diverge after this point dependent upon new policy introduction. We have tested the CCC's scenarios and sector implications with policy officials across Welsh Government and we are in agreement with the CCC's assessment. As such we believe current policy is sufficient to place emissions on a trajectory to deliver a 27% reduction against the 1990 baseyear by 2020.

However, Wales' emissions profile and the high contribution from energy-intensive industries covered by the EU-ETS makes Wales particularly susceptible to year-to-year volatility in emissions, which is shown by the recent 2016 emissions data. Changes in how much energy is used or productivity in industry, can affect our overall emissions. As such there is considerable uncertainty in projecting emissions for a single year in the future and, as recommended by the CCC, it is prudent to ensure we have sufficient flexibility mechanisms, such as international offsets, to account for unforeseen circumstances.

Question 6: What is your understanding of the timetable for the closure of Aberthaw power station, which will have a significant impact on your ability to meet the 2030 interim target?

As it is a private sector commercial enterprise, we do not have a firm date for any future closure of the Aberthaw power station. However, we are aware the current Capacity Market contract held by RWE ceases in 2021. We agree with the CCC's view that the site will be subject to the UK Government commitment to phase out unabated coal generation by 2025. We also agree the Industrial Emissions Directive (IED) requirements will influence overall emissions from Aberthaw over the period up to 2025. As such we are confident in the scenarios in which the cessation of unabated coal generation at Aberthaw contributes significantly to the delivery of our 2030 interim target.

Question 7: The difference between the estimated costs for the first two carbon budget periods is £12bn, which is made up almost entirely of costs incurred in the "Power" sector. This constitutes an increase in costs equivalent to £2.4bn a year over the budget period. Can you provide more details on your estimates for this cost?

The cost of emissions reduction measures is provided as an illustration only and is based on theoretically achievable options identified by the CCC to show a range of costing options. As highlighted in the RIA, the portfolio of policies to deliver the budgets is unknown at this stage and will be dependent on the actions taken in the budget period.

In the chosen scenario, the increase in costs in the power sector in the second budget period is attributed to the capital costs in the nuclear industry and to a lesser extent grid infrastructure.

Question 8: The estimated costs for the first Carbon Budget (2016-2020) are an additional £2 billion above the baseline (i.e. a "do nothing more" option, with no additional policy interventions). Can you explain how you expect additional costs of £2 billion to arise during the last two years of the budget period (i.e. 2018-2020)?

The cost of emissions reduction measures is provided as an illustration only and is based on theoretically achievable options identified by the CCC and will be dependent on the actions taken in the budget period.

The modelling used to undertake the costing is best suited to long term analysis of the energy system rather than policy implications over the 2010s and 2020s. The baseline was created using an extrapolation of the historic trend of Welsh emissions from 1990 to 2014. The start of the 2016-2020 period is where the model scenarios diverge from the baseline, therefore the additional £2 billion arises over the period 2016-2020 and not just in the last two years of the budget period.

In the chosen scenario, the costs in addition to the baseline in the first carbon budget come primarily in the power sector. Within this sector, capital costs in grid infrastructure is the largest contributor, followed by capital costs in both solar and offshore wind.

Question 9: Save for the increase in costs relating to the Power sector (£12bn), you expect minimal changes in costs relating to all other sectors between the first and second budget periods. Can you explain the rationale for this?

The cost of emissions reduction measures is provided as an illustration only and is based on theoretically achievable options identified by the CCC. The portfolio of policies to deliver the budgets is unknown at this stage.

In the chosen scenario the largest cost increases between the first and second budget fall in the power sector, accounting for approximately 75% of costs. This is not however surprising, given 70% of the costs over the whole of the scenario to 2050 are forecast to be in the power sector. These are attributed to capital investments. Similarly the sector with the second largest increase in costs between the first two budgets is transport, also the second largest when looking at costs over the whole scenario.

Question 10: What are the risks and benefits of the Welsh Government's decision to include international aviation and shipping in the Regulations?

Our decision to include emissions from international aviation and international shipping in the Net Welsh Emissions Account is the most transparent approach and is recommended by the CCC. We estimate these emissions accounted for around 2% of Welsh emissions in 2015 but this number will increase over time if they do not reduce in line with emissions from other sources. Counting these emissions is an important first step to spur action in these sectors.

The CCC advised against unilateral action to tackle these emissions. Instead it recommended action at an international level and we are therefore heavily reliant on the UK Government to lead the global effort to reduce these emissions.

There are encouraging signs around this area. In April 2018, the International Maritime Organisation (IMO) agreed an initial strategy to reduce emissions from international shipping, including a reduction objective of at least 50% by 2050, compared with 2008 levels. In June 2018, International Civil Aviation Organisation (ICAO) Council adopted standards and recommended practices as part of its carbon offsetting and reduction scheme for international aviation (CORSIA). CORSIA aims to stabilise international aviation emissions at 2020 levels.

Question 11: Given that there are two years remaining of the first carbon budget period, what are your current projections of the amount of carbon units you will need to use to meet the first carbon budget, expressed as a percentage of the first carbon budget?

Following the CCC's advice, we are not planning to use carbon units to meet the first carbon budget and so we do not have a projection of the amount of carbon units which may be required. We intend to meet the first carbon budget by delivering the actions in our forthcoming report and by the actions of the UK Government in non-devolved areas. However, carbon units are an important feature of our emissions reduction framework as they provide flexibility in the event of changes to the greenhouse gas inventory, increases in industrial emissions or a run of cold winters.

Question 12: What are the risks arising from the variability of the price of offset credits? How can those risks be mitigated?

Predicting the future costs of offset credits is very difficult and therefore the RIA provides a range of possible costs. As offset credits are a global trade, the cost to the Welsh Government of any purchase would be subject to changes in the international market are outside of our control. We anticipate an increase in the price of offsets after 2020. We are required to set an offset limit for each carbon budget and the future price of offsets will inform these decisions as financial considerations are a factor in determining the split between domestic and international action.

Offset credits do not have an expiry date so one possible mitigation strategy would be to buy them while they are cheap. However, we are not planning to use offset credits to meet the first carbon budget and we are not necessarily in a position to spend several million pounds on something we might not need. There is nevertheless a question about balancing the need to secure value for money for the taxpayer, with the need to build confidence in the Welsh Government's intention to reduce emissions in Wales. We also need to recognise we are reliant on others such as the UK Government to act because of our emissions profile.

Question 13: What are the risks for the first and second budgets if emitters cannot continue to trade under the EU-ETS?

First Budget: 2016 – 2020

The trajectory of emissions reduction set for participants in Phase III of the EU ETS based in Wales will remain exactly the same to the end of 2020 irrespective of the outcome of the EU exit negotiations. In the event of an orderly transition period, we anticipate UK based participants will remain in the EU ETS until the end of Phase III. Phase III covers emissions generated from 01 January 2013 until 31 December 2020.

In the event of a disorderly exit, the UK Government has indicated it will initially meet its existing carbon pricing commitments via the tax system, taking effect in 2019. The Budget 2018 announcement stated, in the event the UK leaves the EU without an agreement in March 2019, a new Carbon Emissions Tax would be introduced from 1 April 2019 on emissions of carbon dioxide (and other greenhouse gases on a carbon equivalent basis) from UK stationary installations currently in the EU ETS. The aviation sector would not be subject to the Carbon Emissions Tax. This system, which does not pre-judge other long-term future carbon pricing options, would provide certainty and continuity in the short term and would maintain similar arrangements for industrial installations deemed to be exposed to significant risk of carbon leakage, to support their competitiveness. A regime of Monitoring, Reporting and Verification of emissions will continue after exit day.

The decision of the UK Government to take a unilateral decision in an area of devolved competence was regrettable. Welsh Ministers should have been involved in a joint decision with other UK administrations to ensure specific Welsh interests were taken into account. We are now pressing for a joint Ministerial forum to determine future policy in order to deliver the best scheme for the whole of the UK.

Wales does not have active participants in the aviation EU ETS, therefore, policy impact on emissions from this sector are unaffected. There is a short gap between the end of the Phase III reporting year at 31 December 2019 and the commencement of the new tax at 1 April 2019. However, the risk of installations generating disproportionately higher emissions during the period is relatively low.

Second Budget: 2021-2025

We are confident our highest emitters will continue to be incentivised to decarbonise through the second budget period and beyond.

Welsh Government officials participate in a Working Group with officials from the UK Government and the Devolved Administrations to develop options on the long-term policy alternatives. There is common interest in continuing a carbon pricing policy to stimulate emissions reduction and it is encouraging the UK Government has indicated it has aspirations for future policy to be at least as ambitious as the current regime. However, there are a number of options for the detailed policy to meet this outcome. Given the policy area is devolved, Welsh and Scottish Ministers have jointly written to the UK Government to stress the need for joint decision making on a future scheme.

There are a number of potential options over the long term, which will be influenced by the shape of any future economic partnership. These include remaining in the EU ETS, establishing a UK ETS either on a stand-alone basis or linked to the EU system or another global trading scheme. Given the devolved policy area, there are also options for standalone Welsh policies.

We are keen to provide opportunities for interested parties to input into our thinking, including via a formal public consultation. We will also seek advice from the CCC ahead of setting a future policy. When we understand the constraints of any trade deal with the EU we will be able to explore how we might optimise the effectiveness of a future scheme. It is worth noting the UK encouraged the higher ambition of Phase IV of the EU ETS compared to previous phases.

We must also consider the wider suite of policies which enable decarbonisation including investment in research and development, support for innovation and cross-sector working to develop new low carbon solutions. Many of these initiatives have been supported by European funding and we are pressing the UK Government to ensure alternative sources of funding exist for Welsh businesses to access post EU exit.

Regards

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