



Northern Ireland
Assembly

Committee for Agriculture, Environment and
Rural Affairs

OFFICIAL REPORT (Hansard)

Climate Change Bill: Northern Ireland
Environment Link

16 June 2021

NORTHERN IRELAND ASSEMBLY

Committee for Agriculture, Environment and Rural Affairs

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Members present for all or part of the proceedings:

Mr Declan McAleer (Chairperson)
Mr Philip McGuigan (Deputy Chairperson)
Ms Clare Bailey
Mrs Rosemary Barton
Mr John Blair
Mr Maurice Bradley
Mr William Irwin

Witnesses:

Ms Laura Neal	Friends of the Earth
Mr Malachy Campbell	Northern Ireland Environment Link
Mr Phil Carson	Royal Society for the Protection of Birds

The Chairperson (Mr McAleer): I welcome, via StarLeaf, Malachy Campbell, senior policy officer with NI Environment Link (NIEL); Phil Carson, senior policy officer with the Royal Society for the Protection of Birds (RSPB); and Laura Neal, a lawyer from Friends of the Earth. I invite the representatives to brief the Committee. You are very welcome this afternoon.

Mr Malachy Campbell (Northern Ireland Environment Link): Thank you very much, Chair. The first thing that I should do is double-check that everybody can hear me OK.

The Chairperson (Mr McAleer): I can.

Mr Campbell: Great. I will start by introducing myself. As you said, I am Malachy Campbell, senior policy officer with Northern Ireland Environment Link. I am joined today by Laura Neal, a Northern Ireland-based lawyer for Friends of the Earth England, Wales and Northern Ireland, and by Phil Carson, senior policy officer with the RSPB, who focuses on sustainable farming and land use,.

For those who might not be familiar with Northern Ireland Environment Link, NIEL, it is the networking and forum body for non-statutory organisations that are concerned with the natural and built environment of Northern Ireland. It has 64 full members, who represent 190,000 individuals and 262 subsidiary groups. It has an annual turnover of £70 million and manages over 314,000 acres of land. On behalf of NIEL and its members, I thank the Committee for the invitation to present NIEL's perspective on the cross-party Northern Ireland Climate Change Bill, which was submitted as a private Member's Bill (PMB) on 22 March 2021.

I will start with a little bit of background on why we need a Climate Change Bill. It is clear that the scientific consensus holds that our climate is changing, with wide-ranging risks and consequences for our society, economy and environment. The evidence is clear that, in order to end our contribution to climate change, we need to reduce our greenhouse gas (GHG) emissions to net zero as soon as possible. Northern Ireland is the only part of the UK and Ireland that does not have its own specific legislation at this point.

Although the UK Climate Change Act 2008 and the 2019 amendment both apply to Northern Ireland, as I said, Northern Ireland continues to be the only part of the UK with no legally binding greenhouse gas reduction targets. Since the relevant areas of responsibility are devolved to the Northern Ireland Assembly, there is no mechanism by which the targets of the UK Act can be enforced. A Northern Ireland Climate Change Act would close that legislative gap, and NIEL members believe that such an Act is essential.

It is important to remember that the private Member's Bill is a framework Bill, which means that it sets out the high-level targets and structures that will be required to tackle climate change in Northern Ireland but does not provide the detail on exactly how that will be achieved. The detail will be provided in the climate action plans that are required by the private Member's Bill. The climate action plans will be consulted on and approved by the Executive before being voted on by the Assembly in a transparent and democratic process.

I want to turn to some of the key aspects of the Climate Change Bill. We know that tackling climate change will be a challenge that requires significant effort, and in order to meet that challenge, NIEL argues that it is essential that Northern Ireland set a target for net zero for all greenhouse gases. The UK Climate Change Committee (CCC) outlined what net zero means in its 2019 net zero report. It said:

"Within the UK, a 100% all-GHG target sends a clear signal that all greenhouse gases matter and all need to be reduced. No sources of emissions can qualify for special treatment. All emissions from all sectors must be eliminated or offset with removals."

In Northern Ireland, we should be confident that we can achieve net zero. As the UK Climate Change Committee said in 'The Sixth Carbon Budget: The UK's path to Net Zero' report:

"There is no purely technical reason why Net Zero is not possible in Northern Ireland."

I argue that, if we have to do it and it is possible to do it, we should do it. As time goes on, in the absence of appropriate action, the opportunity that we have to stay within the target threshold of the Paris agreement diminishes. In short, we have to do as much as possible as quickly as possible, and that should be what guides our decisions.

The Chair of the CCC, Lord Deben, in his foreword to the CCC's 2019 zero carbon report, urged the Governments of the UK to:

"legislate for these new targets as swiftly as possible. We must now increase our ambition to tackle climate change. The science demands it; the evidence is before you; we must start at once; there is no time to lose."

Both a climate commissioner and a Northern Ireland climate office are provided for in the PMB. The climate commissioner would have two primary functions. The first is to monitor the implementation of the Act, including the climate action plans, and to lay annual reports in the Assembly. The second is to review the working of the Act more generally and to make recommendations that are considered necessary to achieve the overriding climate objective. The commissioner will, therefore, provide a vital source of independent scrutiny of and advice on Northern Ireland's action on climate change. There is a similar provision in the Climate Change Response (Zero Carbon) Amendment Act 2019 in New Zealand, which established the Climate Change Commission there.

The private Member's Bill also aims to secure current climate and environmental protections by ensuring the environmental laws that applied at the end of December 2020 will continue to apply in Northern Ireland and cannot be weakened. We believe that the Climate Change Bill provides an opportunity to secure that commitment and to ensure that Northern Ireland acts to mitigate climate change.

In conclusion, Chair, I want to quickly address fairness in terms of what we call per capita greenhouse gas emissions of countries; in other words, the emissions per head of population. In 2018, Northern Ireland's per capita emissions rate was 10.77 tons equivalent of carbon dioxide. That places Northern Ireland thirteenth in the world. By that, I mean that there are only 12 countries with higher per capita emissions. That level is, obviously, above the global average, but it is also above the per capita emissions of Brazil, the EU, China and Germany and is four times the per capita emissions of India. That higher-than-average level of greenhouse gas emissions per person in Northern Ireland places an onus on us to set our ambitions for reaching net zero as high as possible and as quickly as possible and, in the interest of fairness, earlier than most other countries.

As well as being achievable, it is clear that, amongst other things, creating a net zero carbon society offers us exciting opportunities to create more jobs, better buildings, better transportation and communication links and better health outcomes through less-polluted air and better access to more green space. It is a chance to reboot our economy and build back better.

Decarbonising our society is a huge and unprecedented challenge. While we know most of what we need to know and how we need to do it, it is important that we approach that challenge with positivity. We must base our decisions not only on the best available evidence but on the foundations of ambition and the determination to achieve net zero greenhouse gas emissions. We will learn along the way, including from our mistakes, and we will need to be flexible, but I believe that we can do this, not least because we must.

Thank you for that, Chair. We are happy to take questions.

The Chairperson (Mr McAleer): Thank you for that presentation, Malachy. That was very helpful. I want to pick up on a couple of wee pieces. You made reference to fairness, and, indeed, the Bill is founded on the principles of a just transition. Do you believe that there are enough protections in the Bill to make the change that we need whilst protecting incomes and livelihoods? In particular, I am thinking of the agriculture industry, which has been lobbying us quite heavily on its concerns about the Bill.

Mr Campbell: I can refer to Phil and bring him in on some of the agriculture issues, but, generally, the just transition is a really important part of the Bill. It is essential that people are brought along with the changes that we are going to have to make and are supported to make them. For example, the Scottish Government have done some work on that and have established the Just Transition Commission. The Climate Change Committee also referred to the need for a just transition in one of its previous reports. It referred to the need for a just transition and stated:

"The transition, including for workers and energy bill payers, must be fair, and perceived to be fair. Government should develop the necessary frameworks to ensure this. An early priority must be to review the plan for funding and the distribution of costs for businesses, households and the Exchequer."

The basic point in that is that we need to plan this thoroughly and properly and that the support needs to be put in place to help all sectors to move towards a net zero carbon economy. As I said, the Bill is a framework Bill, and it is important that the principles of a just transition are in it, but a lot of the detail remains to be worked out.

The Chairperson (Mr McAleer): You mentioned health and other issues here that make it important to have a Climate Change Act. What would be the consequences of going with the UK CCC's recommendations as opposed to those in the private Member's Bill?

Mr Campbell: For a start, there is clarity around a net zero target, which means that we all know exactly what needs to be done. On the question of fairness, as I said, Northern Ireland's per capita emissions are quite bad, which requires us to do more. We should be clear on what we need to aim for, which is net zero. The UK Climate Change Committee said something that is very relevant here. In its report 'The Sixth Carbon Budget: The UK's path to Net Zero', the committee said:

"There is no purely technical reason why Net Zero is not possible in Northern Ireland."

The Climate Change Committee seems to be saying that we can do that and that, if we can, we should. The committee has also outlined the many cross-departmental gains that are likely to result from achieving net zero, some of which I mentioned, such as those in health, improved transportation

and communication links and so on. There will undoubtedly be economic opportunities as a result of developing a net zero economy, and that has been made clear as well. For all those reasons and potentially more, we should be aiming for net zero.

Mr Phil Carson (Royal Society for the Protection of Birds): I will come in there, Malachy, to talk about land use and the co-benefits between the Bill and the 82% target. Delivering on increased ambition for particular land management interventions, such as more ambitious targets for peatland restoration, woodland creation or greater land management schemes to allow farmers to deliver more for nature on their land, would also deliver a range of different co-benefits. We have done a little bit of work on peatland restoration on two sites in Northern Ireland, and we are trying to undertake natural capital assessments of those sites. What would be the public benefits if they were restored? We found that there would be improvements in water quality, which would reduce costs for NI Water. If the right interventions were put in place, we would see improved public access, which would deliver public health and well-being benefits. We would also see benefits from carbon reduction. If we increased ambition in those areas, there would be wider co-benefits, which would help to save money and provide a return on investment in those areas.

The Chairperson (Mr McAleer): That would have an impact on air quality as well, Phil. There is a link with that as well.

Mr Carson: Definitely. Those assessments are looking just at land management in the countryside. If, for example, we targeted woodland expansion in city areas, that could improve air quality and contribute towards people's health. We have to look at all those aspects and look wider at public transport and active travel. There are co-benefits to be delivered in those areas if there is increased ambition. It is about looking at those opportunities and maximising them as much as possible.

Ms Laura Neal (Friends of the Earth Northern Ireland): May I come in very briefly on the legislative basis for net zero? Malachy touched on it, but it is really important to highlight it. A net zero target aligns us with the other devolved Administrations of the UK as well as with the Republic of Ireland. If we are talking about the concept of everyone playing their part, everybody's part would be equal with a net zero target, which is certain. You would not get that with the 82% target, which would see us significantly below that standard. Net zero brings an element of certainty, which is crucial in the Bill.

Mrs Barton: Thank you very much. Malachy, thank you for your presentation. I was interested in what you said about net zero greenhouse gas emissions. Declan touched on how the agricultural community is speaking up. You will have seen the headlines in the press recently about the Climate Change Bill and how the agricultural community is having to cut its share of the livestock in half etc, which will mean people cutting their income in half. When members of the agricultural community invest in something, they are investing thousands of pounds and expect to get 20, 30 or 40 years out of those investments. What advice do you have for them for getting to net zero? What support would you like to see put in place for them if they have to halve their stock and income?

Mr Campbell: Thank you for your question, Rosemary. I will hand over to Phil. First, I want to say that, because the private Member's Bill is a framework Bill, as I am sure you are aware, there is absolutely no reference in it to any job losses whatsoever in any sector. It is not clear exactly what the outworkings of the Bill will be. It is really important to emphasise that, because we have heard a number of different statements and a range of figures thrown out as a criticism of the Bill, and there is very little foundation to most of what we have heard. I will say again that there are no clauses, statements or projections in the private Member's Bill that relate to job losses in any sector. To a certain extent, any of the figures that you or others may have quoted are basically speculation.

As I mentioned, it is important that a just transition is seen to apply to all sectors. All sectors should be supported and guided through the changes that will be necessary for Northern Ireland to move to a net zero economy. I should probably hand over to Phil, who might be able to deal with some of the changes. The details remain to be worked out, but there are no references or clauses relating to job losses in the private Member's Bill. It provides a framework; the details are to be worked out.

Mr Carson: I will come in on that, Malachy. Thank you, Rosemary, for the question. Whilst the Bill does not provide a dedicated pathway, the increased ambition in the CCC's analysis estimates up to 50% reduction in agricultural output. It is quite a complex issue. I will go through some of the key points in it.

Reduced output does not necessarily mean reduced farm incomes or numbers of farmers. A growing body of research is looking at farm businesses in marginal areas, such as uplands or severely disadvantaged areas (SDAs), across Northern Ireland. The research is finding that managing your farm business in line with the land's natural carrying capacity — trying to reduce input usage, feed, veterinary medicines and things like that by reducing your stocking rates — can deliver a better return to your farm business. That is achieved by reducing those costs. Around two thirds of Northern Ireland's land is designated as a less-favoured area or an SDA. There could be opportunities to try to deliver that approach to business management in those areas in order to make those farm businesses more robust, resilient and sustainable. I do not imagine the 50% reduction in output being applied across the board to every farmer or farm business, because we need grazing animals to deliver outcomes for nature. For example, in Fermanagh, where there are breeding populations of curlew, species-rich grasslands and all those types of habitats, we need grazing to deliver that. In some areas, we might need more grazing to do that. It is about being targeted to try to find out what you need from the land and matching stock and grazing towards that.

On output and the relationship with farm income, the agri-sector in Northern Ireland has just had one of its most profitable years, but about two thirds of its income comes from the basic payment scheme as opposed to from the farm output. In some years, as much as 87% of farm income comes from the basic payment scheme. We want to see that public money repurposed to focus on nature and climate objectives so that farmers still get that return from land management, but it will also help to deliver the outcomes that I mentioned, such as carbon sequestration and storage, restoring peatlands, improving water quality, managing riparian areas and things like that or bringing nature into farmland more widely. If that money is used correctly, we can do those two things at the same time, as well as deliver other outputs from land management.

Mr Campbell: I will come in quickly. As Phil said, there is a growing thrust towards using public money for public good, so farmers and other land managers will probably need to manage their land differently. That does not imply, however, that there will be the job losses that have been mentioned on many occasions.

I have heard not only the co-sponsors of the Bill but many other MLAs say in the Assembly, for example, that, while they support the Bill, they do not wish to see the levels of job losses or damages that have erroneously been attributed to the Bill. The agricultural community can potentially take some comfort from the fact that the stated intention is not to damage the agriculture sector in the same way that the intention of the Bill, as I understand it, is not to damage any other sector.

Mrs Barton: I agree with you, but that puts you in conflict with the Climate Change Committee. Lord Deben talked about an 82%, 80%, 84.6% or 82.4% — I am not sure which it is — reduction of greenhouse gas being achievable. He says that you should achieve as much as you can and then work towards zero. He does not believe that the farming community is fit to achieve 100% by the time set out in the Bill. That puts you in direct conflict with him.

Mr Campbell: I do not quite accept that insofar as I do not believe that we are in conflict with the Climate Change Committee. There may be a slight difference in interpretation, but, as I said, the Climate Change Committee stated that there is no reason that Northern Ireland cannot reach net zero. In its report 'The Sixth Carbon Budget', the Climate Change Committee describes five scenarios, of which the balanced pathway is only one, as being illustrative of what a broadly sensible path based on moderate assumptions looks like, rather than as being prescriptive. The Climate Change Committee said that that is a projection of the absolute minimum that should be done.

Mrs Barton: Yes.

Mr Campbell: The committee also said that, if the evidence is there, devolved Administrations should actually go beyond that. We have seen examples of that. The Climate Change Committee recommended a 95% reduction of greenhouse gases for Wales, and Wales came up with a target of net zero. There was no objection to that from the committee; in fact, it was supportive of it.

We might interpret things slightly differently, but I think that it is clear that there is a lot of positivity in what the Climate Change Committee has said. It said that Northern Ireland can reach net zero and that, basically, all places should reach net zero. It clearly said that all emissions from all sectors must be eliminated, so I would not characterise that in the way you did, Rosemary. I do not think that we are in a very different position from the Climate Change Committee.

Mrs Barton: That is good to hear. Thank you.

Mr McGuigan: Thank you to Laura, Malachy and Phil. Before I ask questions, I will put on record, as I always should, that I am a co-sponsor of the Bill.

You outlined a very good case for the urgency of the Bill. Your presentation comes on the back of yesterday's report that showed that the North's reduction was 18% from 1990, which is pitiful when matched against other jurisdictions and regions. You are reporting to us on the day the CCC produced a report on the impacts of climate change. It points to the potential 20-centimetre rise in sea levels by the 2050s. It also states that rising temperatures here in the North is one of a series of climate indicators that need urgent action and attention otherwise there will be greater risks of flooding, summer droughts and wildfires. I think people here in the North sometimes think that climate change is something that impacts other nations and countries. The report clearly sets out the impact that it will have here if we do not take action.

A lot of the focus in the debate so far has been reduced to agriculture. Agriculture is very important. You talked about debates in the Assembly. The Minister sometimes talks about the farmers in North Antrim to make some sort of dig against me. I assure farmers in North Antrim that whilst I will battle for climate change and net zero, I will certainly battle in their interests as well. I am looking at recent reports on advanced manufacturing nations. Highly industrialised economies, such as Germany, are committing to reduce to net zero by 2045. Scotland, which has a large oil and gas sector, has a target of 2045. In the context of what we have to do to, surely it will be beneficial, not just possible, for the North to pursue the target. Will you outline why an ambitious net zero target in the North is possible in ecological terms?

Mr Campbell: Thank you for that, Philip. You are right: there are many economic opportunities in reaching net zero. I would be happy to explore those with you. When launching the consultation on his climate change Bill last year, the AERA Minister said, and this is a direct quotation from the DAERA Climate Change Bill consultation document, which came out last year, that tackling climate change:

"will be viewed not just as an environmental challenge, but also as an economic opportunity."

It is really important to get it across that moving to a net zero economy, which most other developed economies and other economies are having to do, will offer opportunities. The detail on Northern Ireland is maybe not as well developed as that on the UK, but, once again, we can look to the Climate Change Committee's 'The Sixth Carbon Budget' report. When it looked at the issue, it found that the modelling that it commissioned suggested a boost to GDP of around 2% by 2030, with an accompanying boost to employment of around 1%. It also said that that would level off and reach a 3% boost by 2050. There are, therefore, clear economic opportunities to be taken, if we take them.

The Climate Change Committee also said that one of the issues that it has prioritised in tackling climate change is increasing insulation in homes. Doing so would not only reduce climate emissions but create jobs and, hopefully, help local companies that would have to install much more insulation. It could save homeowners money and, hopefully, take people out of fuel poverty. As you will know, fuel poverty levels in Northern Ireland have been higher than any other region in the UK and the Republic of Ireland for years, so we need to tackle it anyway. If we have more people living in warmer homes, they will not only be taken out of fuel poverty, be more comfortable and less stressed but will have more money in their pockets. There are a number of wins from one action that is a contributor to getting towards net zero carbon.

The shipyard in Belfast has moved from shipbuilding to the installation of marine renewables. That is a growing area for it. It is also true to say that, because so many companies, large and small, are advertising themselves as being net zero carbon and so on, it is something that we will have to respond to in the direction of travel. We also have opportunities to market ourselves as a zero carbon community. The National Grid has done research on what will be necessary to reach net zero across the UK by 2050. If I remember correctly, of the 1.6 million jobs that it talked about, it said that 40,000 jobs could be created in Northern Ireland. As far as I can recall, in 2017-18, we had roughly 11,500 jobs in the low-carbon sector here, so 40,000 will be significant anyway, but it is more than three times what the sector had a couple of years back. There are undoubtedly huge opportunities that we need to grasp.

Philip, you asked about the environment and the possible options for what we might call nature-based solutions. It refers to the point that Philip made about public money for public goods. We need our land

to be managed differently. Unfortunately, Northern Ireland is distinctive in the UK. Its land use is actually a net emitter rather than a net sink, so, to address climate change, we urgently need to change that. In changing that, we can create jobs in a different form of land management. There are many wins to be gained from this, so you are absolutely right in the point that you made, Philip.

Mr McGuigan: Thank you. I want to go back to something that Laura said earlier, and Malachy talked about the target in the Bill. Laura, will you talk about the impact of a legislative target of net zero by 2045 and the regulations flowing from it and why that will be important, in the context of the Bill, in sparking broader climate action?

In case the Chair does not allow me back in, I will say now that I am a very keen pursuer of active travel and cycling. There is sometimes criticism of the North's lack of infrastructure and lack of ambition. Do you see the Climate Change Bill plans helping to reduce emissions by increasing active travel?

Ms Neal: A central feature of many comparative pieces of climate legislation across the board is that they contain a strong, overarching, ambitious target that is clear and concise. It goes back to my earlier point that the concept of net zero is one that people can define easily and one that is replicated in Scottish, Welsh and overarching UK climate legislation and also in the Republic of Ireland. We will be falling into step with that. It is about the clarity that speaks in the final overarching objective. That is the ultimate goal, and that sets the pace of ambition and delivery. The interim targets leading up to it are crucial as well, but the overarching goal sets the speed and sets the accelerator, and it has to match. If we are all in this together and if there is a just transition and we all have to play our part and each sector has to play its role, it is crucial that it comes under the banner of a net zero overarching target.

Mr Campbell: I will very briefly add to that, Philip. Laura is right in what she says, but, apart from all the physical and mental well-being benefits from active travel, research from the UK Department for Transport found that cycling schemes can have benefit-to-cost ratios in the range of 5:1 to 19:1, with some returns as high as 35:5:1. Economically, we get much more back from investing in active travel. That same research found that a typical what it called Cycling City could be worth £377 million to the NHS in healthcare cost savings. That is in 2011 prices, so it is going back a few years. The basic point is that it is good for the environment, good for people, good for the NHS and it makes economic sense. We should definitely be doing much more on active travel here.

Ms Neal: Additionally, the Bill weaves in just transition principles, and one of those is to support net zero carbon investment in infrastructure. Active travel would fall completely within that and would excel under a net zero climate target.

Mr McGuigan: Thank you very much.

The Chairperson (Mr McAleer): Laura, this may be more of a trade issue, but, from a legal perspective, given that virtually all our food is processed across the island of Ireland — it is all deemed to be of mixed origin, but it is mixed origin across both islands — could legal or trade issues emerge if one part of the island, the North or the South, reaches net zero and the other does not? Do you foresee any legal or trade issues for our international markets, for example?

Ms Neal: I could not speak about trade specifically without looking at the details, but it is a very simple fact that, if there is a disparity between overarching targets, there will be an issue. It is crucial that net zero apply across the board because we share an ecological landscape and an island approach with the Republic, which has a different target. In order to avoid that, it is crucial to have a similar target with the same kind of objective. You could see issues coming down the line with that.

The Chairperson (Mr McAleer): The UK CCC makes very little reference to the island-wide dimension of the legislation. Do you think that it is important that, because we are a small island and have the same biodiversity, environment and the same farming types across the island, we are aligned as much as possible in that regard?

Ms Neal: I do. Alignment with the Republic, especially on net zero, would put us into alignment with the UK as well. There would be equality across the board in that regard. That issue, in and of itself, also points to the importance of the climate commissioner in the legislation as an independent organisation that is bespoke to Northern Ireland. It would be able to pull in advice from various

statutory advisory climate bodies, such as the CCC and the Republic's Climate Change Advisory Council, and pull them together and advise NI, given its unique position. It is crucial that we have that. As we have seen, the CCC can say only so much about what goes on in the Republic. For that reason, we need something to act like a filter and pull together a range of advice and give a filtered version that is couched with Northern Ireland's position in mind.

Mr Irwin: Thank you for your presentation. Do you accept the findings of the Climate Change Committee in the UK?

Mr Campbell: Thank you for your question, William. Which findings are you referring to?

Mr Irwin: I will read a wee bit from this, which contradicts what you are saying:

"Deep emissions reductions in Northern Ireland are still crucial if the UK is to reach Net Zero overall. On the basis of our analysis, we find that:

•In every scenario for achieving UK Net Zero that we have constructed, Northern Ireland would not get to Net Zero greenhouse gas emissions by 2050."

It said that clearly about "every scenario" that it constructed. It says that Northern Ireland could reach 82% by 2050, which would mean that, overall, the UK would reach net zero. We are part of the UK, so that, in effect, means that the UK will reach net zero by 2050. Do you not accept that?

Mr Campbell: It is difficult for me to answer the question that you have asked me, William, because —

Mr Irwin: I am reading from the Climate Change Committee report. It is very clear; it is in black and white. I am sure that you read it yourself.

Mr Campbell: I was going to say that I did not know whether you were referring to things that you believe that I have said personally or things that I have said to you about the Climate Change Committee. I have quoted the words of the UK Climate Change Committee back to you. It is stated on page 230 of 'The Sixth Carbon Budget' report, which the UK Climate Change Committee published in 2020, that:

"There is no purely technical reason why Net Zero is not possible in Northern Ireland."

I am telling you what the Climate Change Committee itself has said, and it is basically saying net zero. I cannot critique that particular phrase and say, "Well, actually, that's not correct". That is what the Climate Change Committee itself has said.

Mr Irwin: I will quote another line for you:

"getting to Net Zero in Northern Ireland would mean one (or both) of the following:

• A substantial reduction in output from Northern Ireland's livestock farming ..."

To get to net zero, that is clear:

"A substantial reduction in output from Northern Ireland's livestock farming".

Do you accept that that is the case?

Mr Campbell: Obviously, that —

Mr Irwin: It cannot be clearer. It is in black and white [*Inaudible owing to poor sound quality.*]

"A substantial reduction in output from Northern Ireland's livestock ... sector".

They have made it very clear.

Mr Carson: Thank you for the question, William. There are five pathways in the CCC's report. There is the balanced pathway for the UK to reach net zero by 2050. There are areas for increased ambition that we have looked at specifically from a land-use point of view. There are opportunities for increased ambition in faster peatland restoration. There are opportunities in Northern Ireland for increased woodland cover as well. That brings in a choice in how to use land, with the implications for agricultural output and food production.

It is complex. We do not dispute whatsoever what the CCC has modelled in its pathways. However, alternative pathways look at different farming systems. I will quote the work of the Food, Farming and Countryside Commission, which has modelled agroecology approaches to agriculture and land management. It found that you would have reductions in some livestock, including poultry and pork, because they contribute quite a lot to land-use change in the UK and in emissions associated with some other imports. The commission looked at reducing nitrogen fertiliser use through moving to a more extensive system and at opportunities for growing crops for human consumption. It found significant reductions. That is one pathway that it looked at across the UK. There are loads of other organisations looking at it as well.

We have choices to make in what food and farming systems we want. Do we want systems that restore nature and improve water and air quality, for example? We have to look at it holistically. It is not all about climate. Ultimately, we will have to change how we do things and what we produce and eat.

Mr Campbell: I am going to quote from the Climate Change Committee's 'The Sixth Carbon Budget' report again. It states that the impacts of less-intensive farming, or agroecology options, which are the sort of options that Phil mentioned, are not included in the CCC's scenarios:

"due to the lack of robust evidence on the abatement potential".

That means that the estimates for greenhouse gas reductions from agriculture are incomplete and are underestimates. Obviously, more research is needed on that. However, if the projections of the amount by which we can reduce our greenhouse gases are incomplete, that changes the picture. Therefore, it is not clear exactly what will need to happen as we progress. Philip mentioned some of the many different ways in which agriculture can reduce its overall impact.

A lot of this is to be decided. As I said, the Bill is a framework. We know, for example, that a number of agriculture groups support the Bill. As you probably know, the National Farmers' Union has committed to net zero by 2040. I do not think that the National Farmers' Union would support anything likely to decimate the farming sector in England and Wales *[Inaudible owing to poor sound quality.]*

Mr Irwin: You are citing two different things. You mention the National Farmers' Union in England, but England has a lower level of stock *[Inaudible owing to poor sound quality]* than Northern Ireland.

The recommendation from the Climate Change Committee is clear: with a push, and it is a big ask, we could reduce by 82% by 2050. If we do that, the UK, as a whole, would reach net zero. What is the issue there? The UK, as a whole, reaches net zero by doing what the Climate Change Committee recommends. It seems very sensible to me.

Mr Campbell: The Climate Change Committee has also made it clear, as I have said, that the scenarios in its 'The Sixth Carbon Budget' report were just that: scenarios and projections. Of the five projections in that budget, only one — the balanced pathway — involved a reduction of at least 82% greenhouse gas emissions by 2050. If you say that you have to get to at least 82%, and you get to 99% or 100%, that is still within the range of "at least". Therefore, there is nothing that precludes Northern Ireland from reaching net zero.

Mr Irwin: I will finish by reading this once more:

"In every scenario for achieving UK Net Zero that we have constructed, Northern Ireland would not get to Net Zero greenhouse gas emissions by 2050."

To my eyes, that cannot be clearer. The Climate Change Committee said

"In every scenario for achieving UK Net Zero that we have constructed",

we would not do it.

Mr Campbell: Again, the scenarios in 'The Sixth Carbon Budget' report are projections. With the Chair's indulgence, if I may, I will read back to you what the Climate Change Committee said in 2019:

"Within the UK, a 100% all-GHG target sends a clear signal that all GHGs matter and all need to be reduced. No sources of emissions can qualify for special treatment. All emissions from all sectors must be eliminated or offset with removals."

Therefore, I put it to you that the Climate Change Committee is actually clear that the 100% target for the UK means that all emissions from all sectors must be eliminated.

Mr Irwin: It has made it clear that, if Northern Ireland reaches 82% by 2050, the UK reaches net zero. That is clear.

Mr Carson: Can I come in, Chair?

The Chairperson (Mr McAleer): I have to go round other members, folks. Phil, go ahead.

Mr Carson: I was going to say that, looking back and setting the context, the UK and a range of other countries and parts of the world committed to net zero only within the past three years or so. Initially, the Climate Change Act looked at an 80% reduction target across the UK from 2008 to now. Even then, that was challenged. It was said that it was unachievable, impossible and would cost too much. The evidence has become increasingly clear that more ambitious action is needed. We are already at 1.2°C warming now. We need to keep it below 1.5°C, so we need to be as ambitious as possible. I would not be surprised if there were a need for increased ambition in the future. Do we want to be on a sustainable pathway, where we are capable of meeting that, or do we want to have to make more painful, difficult changes to address it?

The Chairperson (Mr McAleer): OK. I will move round the room, and go to Clare Bailey.

Ms Bailey: Thanks for your comments and views so far. You have already expressed quite a bit on the net zero versus 82% carbon targets. Please, feel free to add anything further on that if you think that it is important.

I want to look at climate change legislation generally and what you believe to be essential when expressing any targets. How important is a deadline in that?

Mr Campbell: Laura, are you OK to take that one?

Ms Neal: Yes. Thanks for your question, Clare. Good, strong, ambitious climate legislation that falls into step with that which has already been under way for a number of years in certain countries and nations has to have an ambitious overarching target. It has to have interim arrangements towards reaching that target, because we cannot wait until the very end to assess whether we are reaching it. Then, because it is an area that is so crucially driven by science, and that science fluctuates and changes over time, as things change, the science changes. That has been seen in the advice of the CCC and devolved Administrations' responsibilities under that. Wales, for instance, was given a percentage target. That has since been adapted to go for net zero, and the Climate Change Committee has welcomed that. It is a pathway, and, because of the intrinsic importance of science, it is important to have crucial oversight of that.

As I said, I do not want to undermine the Climate Change Committee; it is important, it has its place in relation to the UK's obligations, and its advice is great. However, NI has a unique position, and that is why we have put the climate commissioner in the Bill. As I have outlined, it is crucial that that organisation exist. We have legislative precedent for creating organisations like that, which focus solely on NI's position. The provision that relates to the climate commissioner itself has been taken almost verbatim from, or is definitely along the lines of, the NI Public Services Ombudsman provisions, as it exercises the same sort of powers and functions. That independent oversight particular to NI is crucial in good climate legislation, as far as I am concerned.

There are other central themes that need to be underscored as well, such as the concepts of transparency and accountability. Those are all underpinned by just transition principles. If we have

those key ingredients, that is strong climate legislation, because climate change is an issue that affects all of us, and we all need to be in it together. We need to have a say, and everything needs to be done equally. It also underlines the importance of applying net zero across the board as well.

Ms Bailey: Thank you for that. When we had Lord Deben with us last week, we tried to touch on the impact of sticking with the UK net zero target or Northern Ireland's part in reaching net zero, but we know that global trade, investment and finance sectors are all moving towards investment in those who are going for net zero. That is why I ask about the importance of having a target, of being seen to be moving towards it, and of being accountable, transparent and open in order to get future investment in our private sector. That includes the agri-sector, of course, and Northern Ireland's produce will be traceable in that as well.

Have you any thoughts on the targets in the Bill for soil and water quality and biodiversity and on how important those are for good climate legislation?

Mr Campbell: Before I hand that to Phil, I want to say that it is important that those considerations are in the Bill. We have a number of biodiversity issues; it is well known that it is not doing well. A 2019 review of the state of nature pointed out just how bad things are with biodiversity. Obviously, those things are related. For example, warming in rivers can prove lethal for young fish. Climate change can have an effect on biodiversity, and that has implications for land managers. One of the big threats to the agriculture sector is climate change; that is why it needs to be tackled collaboratively and cohesively.

It is beneficial that those measures are in the Bill, as they are positive and important, and we need to look at them in the round. I will hand over to Phil to give a little more detail.

Mr Carson: Setting targets for the recovery of nature will be vital as we chart our path forward. Legislative targets to meet objectives will be key. We have seen moves in other legislation to do something similar, so we support targets in law for nature.

Ms Bailey: I have one more question. Phil, you mentioned reforestation and tree planting. We know that there is an urgent need to plant trees in Northern Ireland, and the Minister has announced his plan for that. The response to a question for written answer that I submitted shows that less than 1% of saplings imported by DAERA Forest Service are broadleaf trees. In the financial year 2020-21, almost two million Sitka spruce saplings were imported. Can you comment on that? How are we doing on reforestation if that is what we are planting? What kinds of changes will be needed?

Mr Carson: We are always of the view that it should be the right tree in the right place, for both carbon and nature reasons. We have to be strategic about what we plant and where to get those outcomes. We have therefore done a little bit of work across the UK on where are good areas to deliver woodland expansion. We also looked at which trees deliver the best benefits for the climate. We are finding that, over a 100-year period, native broadleaf trees deliver a greater climate benefit whilst also delivering a benefit for native woodlands. There are also public health and well-being benefits from people accessing those woodlands.

Our view for the future, based on public money being received for delivering public goods, is that funding for woodland creation should be for trees that provide those benefits. It should therefore be focused on native woodland. Public investment of taxpayers' money should not be used for commercial forestry. There will be a role for commercial forestry to play in the future, but we want that to be sustainable as well. I have seen in the CCC pathways that it is proposing two thirds native broadleaf trees for NI and one third commercial Sitka spruce, lodgepole pine and others to deliver those benefits.

Mr Campbell: Phil is exactly right in what he said. I know that you have heard from the Woodland Trust, and I believe that it will endorse what I am about to say, which is that, as well as being native stock, it is to be native native stock, as it has to be locally sourced. Rather than importing oak trees that are native to the Czech Republic or Holland, we should try, as far as is possible, to ensure that the stock that we plant has been sourced here.

The Chairperson (Mr McAleer): Folks, we need to keep moving, because our next witnesses are in the waiting room.

Mr Blair: I thank Malachy, Laura and Phil for being with us again and for the information that they have given to the Committee. Some of my questions have already been covered. I am probably more of a climate realist than a climate activist in most regards, but I also come at the issues in a glass-half-full frame of mind. I do that because I am fully aware of the devastating tipping points that face others who will be disproportionately affected. People with whom we share this big round planet will be impacted on more than us by climate change. I am therefore always very keen to establish what every sector can do. We must not be parochial but instead take a more global view.

My question relates to the sectoral plans in the Bill. Is there more that we can do at this point on a cross-sectoral basis to highlight the required responsibilities and actions? Can we look at transport, business, energy and all the other sectors in the same way in which we look at agriculture? If you add some of the other sectors together, they are as big a contributor as agriculture. We tend to separate out agriculture every time that we have this conversation, and, given the nature of the Committee, that is not a surprise. There is a cross-sectoral impact on society, however, so we have to look at the bigger picture as often as we can. Is that a fair assessment?

Mr Campbell: Thank you for that point, John. You are correct. Yes, that is a fair assessment. I am glad that you mentioned that. Not only do we need to look at this in the round but we need to ensure that our moves to net zero cut across all sectors of the economy. It is important to look at the bigger picture, and that is why I will refer to the per capita emissions, as they put what we are doing here into context. We are a small place, but our per person emissions have quite a significant impact. It is therefore important to consider them.

We have probably already mentioned some of the things that need to be done, and I will again quickly refer to the Climate Change Committee's 2020 report on reducing UK emissions. It mentioned five clear investment priorities for building a resilient economy for the UK: first, low-carbon retrofits and buildings that are fit for the future; secondly, tree planting, peatland restoration and green infrastructure; thirdly, a strengthening of energy networks; fourthly, infrastructure to make it easy for people to walk, cycle and work remotely; and, fifthly, the move towards a circular economy. Those are fairly standard and are the sorts of priorities that most people recognise, because we do need to decarbonise our energy systems and transport, we do need nature-based solutions in land use and we do need to invest in low-carbon options.

The CCC also said that it is really important that we integrate net zero into all policymaking and ensure that procurement strategies are consistent with the UK's climate objectives. That is a very important additional point to make, because we have to take strategic view, put in the resources across the board and invest in the things that will get us to zero carbon, knowing that they will pay back and ultimately save us money in the long run.

We have a fairly good idea of what we need to do to take us most of the way, but, as I said earlier, we will undoubtedly learn along the way. We should learn from others: from cities, individuals and states. We should be prepared to learn from others, because we have to do this collaboratively.

Mr Blair: Thanks for that, Malachy. I have to leave at 3.30 pm for another meeting, so I apologise to those presenting if I have to go while they are still here. Hopefully, I will see you soon.

Mr M Bradley: John Blair must be reading my notes. I am checking over my shoulder to see whether he is standing beside me, because we are both on the same page and talking about the same theme, namely that we concentrate on agriculture on this Committee, and rightly so, because it is a major employer and a major economic generator here. Transport is also a significant generator of greenhouse gases in Northern Ireland, however. There is a tendency to suggest the use of electric cars, but what will the savings be from moving to electric-powered vehicles if we continue to use fossil fuels to generate electricity? We have had notable success in generating electricity from renewable sources, but have reductions in emissions from the power sector demonstrated similar success? That is something that we need to look at.

We have an increasing number of wind farms in Northern Ireland but, as yet, few initiatives for using tide and wave movement as an electricity generator. How do you see that progressing in the future, considering that there are always objections to increasing the number of wind farms across the Province? Furthermore, going back to transport, I will say that our rail network needs vast improvement and investment in order to remove so many HGVs from our roads.

I am trying to get all my questions in at once, because I know that the Chair has said that we are pushed for time. How is Northern Ireland doing with recycling compared with Wales, Scotland and England? Is recycling cost-effective in reducing waste to landfill sites and therefore emissions, or is there an argument for incineration to get rid of waste?

Finally, in the next decade, we will require societal changes. Do we need so many street lights, motorway lights and roundabout lights to be switched on? I encourage thinking of other ways in which to reduce emissions instead of concentrating on agriculture all the time. Sorry for asking all my questions in one go.

Mr Campbell: Thank you for your many questions, Maurice. I will have to ask for the Chair's indulgence if I am to try to answer all of them. I will try to remember them.

You make very good points. It is true that electric vehicles are as green as the power that goes into them. It is therefore really important that those electric vehicles be powered by renewable electricity. It is also worth noting that electric vehicles emit only water, not all the particulates and gases that come out of an exhaust of a vehicle that uses an internal combustion engine. There are very important considerations to be made about air quality when using electric vehicles, even just to clean up the air in urban and other environments. We should be using more renewable electricity to power electric vehicles. That could be a very virtuous circle, if you like.

I am trying to remember your other questions, Maurice. Will you remind me of them?

Mr M Bradley: I asked about the incineration of waste in order to reduce emissions.

Mr Campbell: You asked a couple of other questions in between.

Mr M Bradley: Yes. I asked about investment in the rail network in order to take some HGV lorries off the road.

Mr Campbell: We stated in our written evidence to the Committee that one of the key things that NIEL believes needs to be done is the decarbonisation of transport. One of the ways in which to decarbonise transport is to use electricity as a power source for transport. You can have electric buses, lorries and so on. That would solve a lot of problems around emissions from such vehicles, and it could even out the demand and usage of renewable electricity. Another option is to have electric rail.

It is difficult for me to comment on the potential for transport by rail in Northern Ireland, because we have a limited rail network. I cannot really give NIEL's opinion, because it is not something that we have explored in detail, but, on a personal level, I think that it would be a good idea if we could have more rail travel, particularly if it were electrified rather than using diesel. That would be a good thing.

Mr M Bradley: I ask for your patience, Chair. I touched on the generation of electricity through wind farms. Generally, if a wind farm appears anywhere, it garners a lot of objections amongst the public. Have you explored the need for the generation of electricity using tidal and wave power around our coast?

Mr Campbell: There is a misconception that wind farms are not popular. The surveys that I have read and the research that I have done show that there is a very high level of support for renewable energy. It is consistently at 80% and above, so it is a misconception that there is no support for wind farms. That is not to deny that there are patches of objection.

It is also important that renewable energy technologies be sited appropriately. That applies to wind turbines and hydroelectric power. Any hydroelectric developments should not prevent the passage of migratory fish and so on. We need to do those things in a sensitive way that respects and hopefully does not damage our natural environment in any way. It is not quite that clear, but we do need more alternatives.

The area of marine power, tidal power, wave power and so on is one in which, unfortunately, we have not taken advantage of the opportunities that are there. I am aware that some marine-based renewable technologies have been exported from Northern Ireland to other places. For example, in Scotland, there is Limpet Technology, on which Queen's University Belfast worked an awful lot, yet that technology is being applied in other places rather than here.

It comes back to the question that Philip McGuigan asked earlier about the potential opportunities that we have. There are a lot of opportunities. We could take a lot of positives, and I would like to see more of those opportunities happening.

Mr M Bradley: I have just one final point, and it needs just a short answer. Why do we not reduce the use of lighting on our streets, motorways and roundabouts to decrease the reliance on electricity and the generation of electricity?

Mr Campbell: That is a very good point. That question might be better directed to the Department for Infrastructure. It is fair to say that we should not have lights on in the middle of the day along our roads. I have seen that myself. That is a waste of energy, and we need to be reducing our energy consumption as much as possible, so I agree with you that that should be addressed.

Mr M Bradley: Thank you, and thank you, Chair, for your patience.

The Chairperson (Mr McAleer): Thank you very much, Laura, Phil and Malachy, for coming here this afternoon and for your presentation and very good answers. We will see you again.