

DÁIL ÉIREANN

AN COMHCHOISTE UM GHNÍOMHÚ AR SON NA HAERÁIDE

JOINT COMMITTEE ON CLIMATE ACTION

Dé Céadaoin, 19 Meitheamh 2019

Wednesday, 19 June 2019

The Joint Committee met at 2 p.m.

Comhaltaí a bhí i láthair / Members present:

Jack Chambers,	Paul Daly,
Marcella Corcoran Kennedy,	Máire Devine,
Timmy Dooley,	Michelle Mulherin.
Tom Neville,	
Thomas Pringle,	
Eamon Ryan,	
Sean Sherlock,	
Brid Smith,	
Brian Stanley.	

I láthair / In attendance: Deputies Danny Healy-Rae, Martin Kenny and Eugene Murphy.

Teachta / Deputy Hildegarde Naughton sa Chathaoir / in the Chair.

The joint committee met in private session until 2.14 p.m.

Climate Action Plan: Minister for Communications, Climate Action and Environment

Chairman: I welcome members and viewers watching on Oireachtas TV to the second public session of the newly formed Joint Committee on Climate Action. Before I introduce our witnesses, members and visitors in the Public Gallery are requested to ensure that mobile phones are turned off or switched to airplane mode for the duration of the meeting. The purpose of today's meeting is to discuss the all-of-government Climate Action Plan. On behalf of the committee, I extend a warm welcome to the Minister for Communications, Climate Action and Environment, Deputy Richard Bruton, and his officials, Mr. Brian Carroll and Mr. Eoin McLoughlin.

Before we commence proceedings, I advise witnesses that by virtue of section 17(2)(I) of the Defamation Act 2009, witnesses are protected by absolute privilege in respect of their evidence to the committee. If they are directed by the committee to cease giving evidence on a particular matter and they continue to do so, they are entitled thereafter only to a qualified privilege in respect of their evidence. They are directed that only evidence connected with the subject matter of these proceedings is to be given and they are asked to respect the parliamentary practice to the effect that, where possible, they should not criticise or make charges against any person, persons or entity by name or in such a way as to make him, her or it identifiable.

Members are reminded of the long-standing ruling of the Chair to the effect that they should not comment on, criticise or make charges against a person outside the House or an official either by name or in such a way as to make him or her identifiable.

I call on the Minister for Communications, Climate Action and Environment, Deputy Richard Bruton, to make an opening statement.

Minister for Communications, Climate Action and Environment (Deputy Richard Bruton): I thank the Cathaoirleach and the committee for the huge amount of work they have put into developing the concept of a climate action strategy that will help us achieve the targets we have set. I also take this opportunity to thank my officials who are here, Mr. Brian Carroll and Mr. Eoin McLoughlin, and the many other officials in other Departments who have contributed immensely to the development of this plan, which is determined to raise our ambition and deliver on the expectations that children and future generations are putting upon us.

The past ten years have seen Ireland achieve a great deal. In many ways, those things would have been unthinkable in the past. We changed our Constitution and we brought our economy back to full employment. However, we can and we must do the same for the greatest challenge facing humanity today, namely, global warming and the impact it is having on our society and the sustainability of civilisation and the natural world, which so many people are looking to us to protect.

Ireland is far off course and very exposed. We set a target of reducing emissions by 20%. Between 2013 and 2020, the impact of the recession brought us below the curve but when the economy started to recover, it was very clear that we failed to break the link between economic prosperity and carbon and greenhouse gas emissions. We have to act now to make ourselves resilient in the face of this perilous threat facing the globe. The longer we delay taking the nec-

essary action, the harder it will be and the fewer opportunities will be available to our people in the coming change. Like many of those achievements, we started by developing a determined resolve across our community. That is the significance of this Oireachtas committee bringing forward, on the basis of the proposals coming from the Citizens' Assembly, a detailed worked-out strategy based on hours of hearings. As with other challenges we faced in making change in this country, that has created a solid foundation. It is something that can allow us to bring the community together behind this effort. It is not without significance that the committee's report was endorsed unanimously by the Dáil, in that process declaring a climate and biodiversity emergency. That has created an important backdrop for the work we are now seeking to do.

This effort is integral to the vision that we have for Ireland in Project Ireland 2040 of a country that is regionally balanced and that is compact, connected and sustainable. There is much work to be done to realise that vision.

I accept fully that Government has major and central responsibility in bringing forward this plan and designing the roadmap for achieving our targets. In doing that, we have sought to design a pathway that is both sensible and fair, sensible in the sense that we have selected areas which represent the least burden to our community in making the adjustment. We have gone to great care to evaluate the different options and different technologies and how they might evolve over the next ten years and picked a pathway that represents the least burden and the most opportunity. We have also been at pains to ensure that those who are most exposed or least equipped to support the change necessary will be supported as a part of this plan.

I suppose what makes the journey difficult for people is that we all have to make a big shift in our priorities in how we spend our money and how we live our lives. It is important that we engage with citizens as leaders of this community to persuade them that this is the right course and that the future resilience of their children, farms, enterprises and homes depends on us making changes that adapt to this new reality. There are actions expected of every section of Irish society and one will see these are detailed in the chapters on electricity, enterprise, agriculture, transport, the built environment, waste generation and the circular economy; on the public service leading by example; and on the international stage.

I am confident that when we determine to make a shift, we build on this shared determination, and we put in place the structures that we are putting in place here that are legally underpinning this and overseen with the leadership of the Taoiseach's office. We can deliver this change. The committee will recognise in much of the plan its own fingerprints and the work that it has put in.

We are supporting the European Union aim to be net zero in 2050 and undertaking the work to show how Ireland can contribute to that. We are aiming for 70% renewables in electricity. We are aiming to deliver the 30% reduction in the non-ETS. We are adopting what I might call a "precautionary principle" in doing that. We are not relying on high oil prices to do the lifting for us or switching from the ETS sector to make less adaptation in the undertaking. Of course, the reason we are doing this is that the period to 2020 is the start of the change we must make if we are to reach net zero in 2050; the pace of change will increase in that second period after 2030. It is right that we try to do as much as we can in this early period when we get a much bigger payback in terms of the overall impact.

We are adopting carbon budgets, with a target range assigned to each Department and sector. This is a powerful tool to change the way Departments and Ministers think about their responsibilities. We are all used to living within the financial resources that are given to us. We

must now be conscious that we must live within the carbon resources that are afforded to us in a fair way. That is also something this committee was determined to see.

We have adopted a model of a climate implementation board in the Taoiseach's office so that we have that central not only co-ordination but impetus and momentum of accountability to the very heart of Government. We are strengthening the Joint Committee on Climate Action, as the committee itself recommended. We are updating our legislative arrangements so that the responsibility and accountability will be clearcut.

I hope the committee sees in this plan something that it can support and adopt. It deals with an issue that is contentious for some, namely the pricing of carbon. I am an absolute believer in the pricing of carbon. It is important to recognise that the emission of carbon dioxide damages our environment and at present people do not pay for the damage that is created. In any trajectory of change, we must recognise the polluter pays principle and the damage has to be included in the price if we are to make the right decisions.

We have here something that is workable and deliverable. We have 183 actions that get this project off to a strong start but I assure the committee that this will be a rolling plan. We will be taking on board new ideas and new suggestions. We will be adapting it based on experience and we will be seeking to make this a rolling, adaptive and sensitive approach to what is an important challenge.

This is a test for all of us, particularly those of us who are policy makers. It is a test for citizens as well. I believe that the spark of creative power is strong in Ireland and that if we can kindle that, we will deliver this change and ensure that we pass on this country, but also the globe, in a better condition as a result of the actions we initiate from now on.

Chairman: I thank the Minister for coming before the committee at such short notice, in fact, in the same week that he launched the all-of-Government action plan. Members are eager to discuss the measures in this plan with him. It is the most ambitious plan ever to come from Government addressing climate change and how to reach our targets.

The Minister has listened to us as a cross-party committee. He has adopted many of the committee's recommendations, some of them word for word which is quite unusual for any Government action plan. We all look forward to working with him over the weeks and months ahead to ensure that these measures are rolled out.

In the area of governance, the fact that the Minister has adopted our recommendation on governance is central to this whole plan, ensuring that we, as a standing committee, will have the oversight, in relation to implementation, accountability and transparency, for all Departments and State agencies in reaching their targets.

I have a question for the Minister. This is an all-of-Government plan and the Minister made reference to the fact that, as then Minister for Jobs, Enterprise and Innovation, he had an all-of-Government action plan on jobs. What are the learnings from that process in 2011, where the Minister had to reduce unemployment from 16% - it is now down to below 5%? From working with the different Departments and pulling the different Secretaries General and officials together, what are the learnings from that process that the Minister could use in implementing this ambitious climate action plan?

Deputy Richard Bruton: I refer to the learnings that I mentioned among which accountability from the centre is crucial. If one has 15 distinct Departments and they all are working

to their own priorities and within their own silos the needed change will not be achieved unless one has not only a verbal commitment to deliver but it also becomes a priority within that silo. When things do not work as intended, there will not be quick adaptation and responsiveness within the different sections of government. Having the central authority of the Taoiseach overseeing these targets and the reporting on them on a quarterly basis will ensure this becomes a top priority. That was a feature of the action plan we had.

The other very important element is the capacity to continually adapt to the experience, new suggestions and finding where the boot pinches, if one likes, in trying to achieve the change. We must carry people with us. It cannot all be about imposing change on people. We must talk to people, understand and work with them in order to make changes.

The scale of this challenge is different. In trying to deliver employment growth everyone started with a shared objective. In this area there will be more of a tendency for people to ask why someone else is not making more of an effort. One of the challenges is to ensure what we will ask of different segments of the community is fair and balanced. That is a challenge on a scale that is different from what we experienced with the Action Plan for Jobs. In recognising the difference we have put much more legislative infrastructure behind this. We recognise the role of the committee as being really powerful and the need for the accountability of individual Ministers to the committee. While we are building on the previous model, we are adapting it in the light of the work of the committee and the scale of the challenges we are seeking to meet.

Deputy Timmy Dooley: I thank the Minister for the presentation. As we dig deeper into the report, it becomes evident that while it is clear on why we need to do what must be done - we are all aware of this - it is about setting out clearly what needs to be done to reach the targets we have set and moving towards net zero emissions by 2050, but it is relatively light on how we are going to do it. In saying that, we need to look at costs. I know that there was a discussion yesterday about this issue at the Committee on Budgetary Oversight, but is there clarity on the cost, on the one hand, and, on the other, savings to be achieved based on the actions and what needs to be done? Will the Government set out how much of the cost of the new climate plan will have to be carried by the Exchequer and non-Exchequer sources?

On accountability and targets, will the Department provide information on implementing the committee's recommendations? We need some more information on this aspect.

On the just transition in detail, for example, our recommendation was clear. We indicated the need for a just transition task force. The plan only identifies that a just transition review will be carried out by the National Economic and Social Council, NESCC, which is already carrying out some research in the area. If we are serious about the impacts of the actions that must be taken, there will be a significant effect on certain parts of the country. There was much talk here about the impact on the midlands of the non-use of peat in any aspect of the economy, not just on the electricity side of things. There is a target to end the burning of coal at Moneypoint by 2025, while the plan speaks about moving away from fossil fuels in the heating of homes. That will have an impact on those who are servicing the industry.

There will be a significant transition required in the various sectors and I do not know how it will be catered for from the Government's perspective. The more I read the report, the more I gain an understanding of what the Taoiseach spoke about in "nudging" the public along, rather than hand-holding them through the process, which I believe is necessary. If people are only nudged along in the areas where jobs will be affected or even taken away, they will be left behind. We were very clear at this committee during the various hearings that we should not end

up in a rust belt scenario, as was evident in the United States or other countries where there had been a move away from traditional industries. I would like to hear much more from the Minister about how that process will be managed. We can have all the accountability we want and oversight by the Taoiseach's office, but unless we have the work done contained within, it will just be a box-ticking exercise. The Government will have to take a much more involved role.

On the energy side, we very much support the idea of getting much more of our energy from offshore wind energy projects. I would like to see detailed plans in place to assist that sector and recognise how there can be a dividend from being part of the early adoption of these technologies and developing them to the point where there can be a new industry for us.

Also on the energy side, will the Minister explain why it will take two years to introduce the feed-in tariff for solar photovoltaics, PV. The plan indicates a pilot microgeneration grants scheme for solar PV will not be in place until 2021 which is quite a distance out. Will the Minister confirm that community-led development and citizen participation will be supported in the first round of the auction under the renewable energy share, RES, scheme, on which we really need to get moving? Part of it is getting citizens to participate. These are measures in which people can and want to participate. When people contact us, they say microgeneration is a big issue.

On the housing side, is there any available information on the cost per home in various sectors? As we know the building system and models used for houses in different times, has there been any analysis of the cost per house of a deep retrofit? We all use these terms that slip off the tongue, but somebody will have to pay for it. I am certainly concerned that if we are depending on citizens to make these changes in order that we will make these binding targets, we will place a huge burden on the shoulders of homeowners. We need to be up-front with them at an early stage and indicate what will be the cost. Will they be able to afford it off their own bat or will the State have to do more to support them?

Our report requested the Department of Agriculture, Food and the Marine to produce a plan for the agriculture sector to align it with meeting our Paris Agreement commitments, including a review of national land use under agriculture schemes and extensive public engagement. The Minister's plan makes no such commitment, nor does it provide any of the detail of the ongoing review and revision of Food Wise 2025. Will he mention some of the reasoning?

Deputy Richard Bruton: I thank the Deputy for his constructive contribution throughout the debate both in the Chamber and here.

On costs, we have €30 billion in the national development plan assigned for this purpose, including investments in retrofitting, the grid and so on. It includes the climate action fund. There is significant money being set aside to achieve this. We have learned that we must be more innovative in using some of the money. This relates to the Deputy's final question. We rely largely on subsidies given to individuals to undertake retrofitting, but that model will not deliver the scale and aggregation we need to achieve. We must think in terms of targeting wider areas, aggregating and scaling up work, using smarter procurement for more cost-effective professional advice and installation work and developing smarter finance and easier payment methods. We recognise that we need to use our money more innovatively. Almost €4 billion has been set aside in that area and we must ensure that we use that in a targeted way which has the greatest impact and delivers quicker than the current model.

In delivering this, we had to consider a range of policy instruments for every sector. We

cannot expect the Exchequer to fund all change. We had to ask in which cases regulatory changes are appropriate as a means of creating an obligation for people to make those changes. This approach tends to be adopted where the case for not making the change is very weak and the changes are necessary because they stand out as sensible both economically and in terms of climate. That is why we are discussing the options of obliging employers with more than 20 parking spaces to have electric charging facilities, requiring new homes to be built to a net zero energy standard and eliminating the use of oil boilers from 2022. In some cases, we are making decisions to impose requirements where the cost must be borne by the people. We will choose those areas sensitively and they will evolve over time and recognise the difficulties that will be encountered, for example, supply chain issues.

It is important that carbon pricing is recognised as a means of changing the payback period for people contemplating changes. If there is a trajectory for carbon prices, people will choose to adopt changes earlier than would otherwise be the case. Everyone who has considered this challenge and advised on it, including the Climate Change Advisory Council, has recognised that. Incentives also have a role. That can often be important, particularly in introducing people to technologies they might not otherwise consider. Significant supports have been available for deep retrofitting, the adoption of electric vehicles and so on. A mixture of policy tools will have to be developed and adapted over time to shape the share-out of cost. In addition, money raised through a carbon price will be available for disposal. The Minister is consulting on how that might best be done. This offers an opportunity.

Approximately 75% of the measures we have chosen pay for themselves. They would be good for the country, even if there was no climate crisis. It is important to recognise that. There is not a net cost to all these measures, some of which are very justifiable, especially in areas such as electric vehicles, retrofitting work and elements of agriculture. The selection of measures and their sequencing were based on a recognition that some of them will be economic today, while in the case of others, for example, batteries, technology will bring down the price at a certain point such that they become economic. This is an evolving area where we must adapt policy and ensure it is delivering the targets. There is no perfect foresight where we can see a curve with a series of fixed elements for which an exact share-out of the sort the Deputy suggests is available.

The just transition should be integral to the implementation of the plan. Having the NESC issue strong advice that will be core to the implementation of the plan, which will be run from the Taoiseach's office and my office, is the right way to do it. It makes the NESC integral to the plan. We will have to use the new opportunities creatively, for example, retrofitting and microgeneration, to ensure they recognise areas of pressure, including the bioeconomy and the renewables sector, to which the Deputy referred. We will need to use the regional enterprise funds, the urban and rural funds and climate action funds in a way to support the transition.

The decision on achieving 70% renewables was very important. The Deputy is correct that we will need detailed planning to achieve this and that planning is being undertaken. We can absorb up to 65% renewables on the grid at the moment and we are developing plans to push that figure up to 75% and subsequently to 90%. We must make changes in the grid's capacity to make much higher shares of renewables possible.

The committee has been conscious that we must adapt the Foreshore Act to provide for off-shore wind capabilities. The Deputy is absolutely right that detailed planning is needed and that is already under way. The plan will extend to dividends for the community. We anticipate community gain and participation and the first round of the renewable energy share, RES, scheme

will include a pot to be allocated to community bids.

The Sustainable Energy Authority of Ireland, SEAI, has done a great deal of work on how much it costs to retrofit homes and how one incentivises people to retrofit their homes and come together to have work done. The authority has developed sustainable energy communities and various grant schemes, including the warmer homes scheme which provides grants of up to 100%. As the Deputy will have seen, while it costs approximately €14,000 to undertake external wall insulation in a typical home, cavity wall insulation costs approximately €2,000. There are significant differences in the cost of improving the fabric of a home depending on the starting point. Heating control systems cost around €1,000 but they have a rapid payback in terms of the impact on heating bills. Grants are also available for heat pumps and solar installation.

We have a fair idea of the costs involved in retrofitting homes and different houses will have a different menu to choose from. The ambition is that 500,000 households, or approximately 30% of the 1.75 million homes in the country, will have made significant investment in the fabric of their houses by 2030. I acknowledge that this requires people to change what they regard as the priority for their home. They will have to view future-proofing their homes for the changes taking place around the globe as being as important as other items on which they spend money in their homes. The State will have to change its approach to achieve this because the current model is not fit for purpose.

Deputy Timmy Dooley: What will that mean for the current grant system?

Deputy Richard Bruton: We need to move to an aggregated system, one which operates on a much larger scale. We must scale up work and give people in particular areas the option to do that work collectively, while also developing smarter finance and easier pay methods to back it up. We need to design a suite of measures that will be effective and offer people different supports depending on their ability to pay.

Deputy Timmy Dooley: Does the Minister have a timeline for that?

Deputy Richard Bruton: We are starting immediately to set up the cross-departmental group to design that. It is one of our priorities. It is integral to moving from where we are on a more accelerated basis.

The Climate Change Advisory Council has indicated that it is doing work on agriculture and land use, and we look forward to the outcome of that. It will be integral to the design of the Common Agricultural Policy which is also in evolution in the Department of Agriculture, Food and the Marine. There is no doubt that land use and how we manage land can make a significant difference. Even in this iteration of the plan that will run until 2030, land use, agriculture and forestry will contribute more than 40% to the amount of abatement, including the legacy of the forestry we already have. It is really important that we make decisions in this regard and there will be big changes in farm practices, as well as diversification over time and an ambition to nearly double the amount of forestry that we are planting. Delivering in those areas will be integral to the plan.

Deputy Marcella Corcoran Kennedy: I welcome the publication of the climate action plan, which is very ambitious and will prove to be a tremendous challenge. The whole-of-Government approach and reaching out to communities will be a very important means of engaging with everybody. There is no doubt that citizens now are very aware of what we need to do and being a small island, we need to show this kind of leadership.

Are there details on how people can access the smart finance? Sustainable energy communities and microgeneration often came up as being very positive when we were thinking about our recommendations for the plan. How will the planning restrictions be handled for rooftop solar panels? Will they be changed? Can the Minister give us more detail on the midlands retrofit scheme? I am a member of the transition team in Offaly which is a cross-stakeholder group led by Offaly County Council. It can bring a lot of learning to the table and it would be useful to engage with it. The Minister might be able to give me some information on that. It is very important that the board be based in the Taoiseach's office from a governance point of view but how will that work in practice? Who will form part of that board? How will the just transition review group work? Will it, for example, engage with the transition team in Offaly or how will that go within the National Economic and Social Council, NESCC?

Deputy Richard Bruton: I absolutely agree with the Deputy that reaching out to communities is crucial. Someone asked me why we put it in as the last chapter rather than the first. That is a reasonably well-made point. I suppose the idea was to outline the scale of the challenges in the sectors and then see how we ensure that communities can participate.

I omitted to answer Deputy Dooley's question on microgeneration. We do need to consider planning restrictions. That is one of the areas. We need to consider the pricing. The Citizens' Assembly recommended a wholesale price and there is an EU obligation on us to pay. We are conscious of the need to think that through because some of the schemes elsewhere have run into difficulties of equity as between people who are selling into the grid and those who are not and the share out of the cost of running the grid. We have to make sure there is an equitable scheme there. We aim to have that worked out by the end of 2020, which is ahead of the legal obligation of 2021.

The sustainable energy communities are great exemplars. They have run from small to very large scale. The Sustainable Energy Authority of Ireland, SEAI, has very good experience in this. It has mentors and the opportunity to develop a plan and there is support for that. It then has the opportunity to implement that plan and there is another layer of support for that. The sums of money can be quite big. They require partnerships. It cannot be just the local authority. It has to involve multiple sectors within the community. The plan envisages that the number of those would grow sixfold over its course. We want to see far more people getting involved in that, as well as the sort of community participation that Deputy Dooley was talking about.

The details of the smart finance and the area-based schemes have yet to be worked out. There is no doubt that the local authorities and the housing associations are critical players or obligated entities, as they are called, which now support some of the sustainable energy communities, employers, funders and the State and the SEAI. We will have to design a package that can aggregate that work, take on the professional expertise in an effective way, reach out to communities in a way that is more effective than the one-off application form model and develop easier payment methods. We have seen the ability of the State in partnership with financial institutions in microlending to bring down that cost. It may involve the State taking a layer of the risk but we need to evolve that model. We are starting that work as a priority.

The full make-up of the implementation board has yet to be decided but we must make that the Secretary General to the Government and the Secretary General of my Department are at its core and that reporting is to the Taoiseach. Experience shows that creates a level of accountability that guarantees a much higher response rate to the actions we are putting in place.

The area-based scheme in the midlands is evolving and will involve local authorities, hous-

ing associations active in the area and other energy entities in the area, funders, employers, community groups. We need to get a group that is effective but also a model that can deliver effectively and the design of that is under way. The Government recognises that we need to do that and that proceeding on the present basis with subsidies will not get the scale of change we need.

Deputy Eamon Ryan: I agree with the Minister that we are at a turning point where this country will become a leader on climate change. We have that creative capability. It works best when we work in collaboration. We have political consensus on why we need to do this and what we need to do. We have to work out the how and that is an iterative process. There is really important work in this plan which echoes the work the committee did on that process and the way we pulled together to do it. That is the good news and the key story.

The committee work has been based on the understanding that we have a 100 million tonne gap. If I understand it correctly, the better land use management is historic, mainly forestry investment, and the technical Teagasc recommendations on manure and soil management accounts for that. The Project Ireland 2040-----

Deputy Richard Bruton: The Teagasc stuff is in this.

Deputy Eamon Ryan: Fine, that is mainly historic forestry. Project Ireland 2040 includes the existing national development plan measures if they are all delivered. Are the 58 million tonnes effectively the additional new measures contained in the plan?

Deputy Richard Bruton: That is correct.

Deputy Eamon Ryan: On page 27 of the climate action plan, the Minister makes the case that we are looking to achieve a 2% reduction per annum in the next decade, and then to meet an 80% emissions reduction target by 2050, we would go up to 7% per annum. What exactly is our commitment to net zero emissions by 2050? Is that contingent on the European Union as a whole agreeing it? Are we agreeing it now? What is the status? If we are agreeing it, the 7% per annum decrease in emissions would, presumably, have to be 8% or 9% after 2030.

Everything that I have read about the transition is that it is cheaper sooner rather than later, deferring is much more expensive and stranded and wrong investments are risked in that path. What is the Minister's response to the criticism that 2% per annum is not ambitious enough given that it leaves us with between a 7% and 9% decrease in subsequent decades? That annual reduction would be an incredible challenge. Are we committing to 2050? How can one justify 2% now and putting off the larger gains until later?

Deputy Richard Bruton: We support the EU move to achieve a 2050 reduction but we need to evaluate what that will mean for Ireland and whether we can also commit at a national level to a similar reduction. That work will be done over the remainder of the year but we are joining the coalition to see this ambition set.

We must consider the technology that we can be reasonably sure about, and we do not have that level of foresight to envisage these changes. The measures that will help in that later journey are not all economic at this point, whether it be carbon capture, carbon reduction, fossil fuel alternatives to back-up our electricity grid and so on. We have started with the 2030 target, which is a legal obligation, but we are way off course. The latest figures from the EU suggest that we are running at close to 20% off course and, therefore, we will not deliver anything close to the target. We have sought to get ourselves on course for 2030 but consistent with net zero

emissions in 2050. Where there is a stand-out indication that we should adopt a technology early based on reasonable knowledge of its direction, we are including it in the early phase but where that is yet to be there, we are not bringing forward those. While it is cheaper the sooner one acts, that is not true for every action. There are plenty of very expensive actions but if one sought to do them now before the technology had evolved, they would prove very expensive. One must judiciously choose the pathway based on the information available. We got help to identify the direction of travel of the technologies and that is why there is a greater emphasis in the plan on electric vehicles. There is strong confidence that the technology will quite quickly reach a tipping point for the adoption of electric vehicles. There is an imperfect knowledge of the future that one must weigh against acting in an early basis.

Deputy Eamon Ryan: There are two sectoral areas where we should not just rely on technology tweaks that a marginal abatement cost or MAC curve approach tends to bring but think about system change, which must come from the top down and the centre. One of the key recommendations made by the committee was to use a land use plan akin to what was done in the UK. Lord Deben was very clear about the benefits to be gained from a land use plan and I specifically sought this measure. There are many references in the agriculture section to some of these issues that we are talking about yet it is not specific and clear. Action 110 on page 54 states: “We will develop a roadmap by the end of the year to ensure the future development of agriculture and land use, including the forestry sector, will be built on environment sustainability and contribute fairly to Ireland’s climate, air and energy targets.” That roadmap could, and should, be a land use plan in the sense of not telling what every acre is going to be. The Government says it wants to increase afforestation from 5,500 ha to 8,000 ha but it says nothing about how many of those hectares will be new continuous cover forestry or a continuation of single species, clear felling and fast rotation. It is vital to have that detail because a biodiversity emergency and not just a climate emergency has been declared. I recall when our adviser, Professor Peter Thorne, an eminent scientist said that we have to seek win-win solutions. Land use is the biggest area for win-win solutions though the rewetting of bogs, the diversification of farming, and changing of the current farming model of just beef and dairy production at all environmental costs and these opportunities could be stitched in this. That has to be mapped and based on a land use plan. Action 110 states that other key stakeholders will be involved. They should include the environmental community such as the National Wildlife Trust and others that have an interest because this is a once in a lifetime opportunity for us to tackle the biodiversity crisis as well as the climate crisis. That can only work when one has a proper land use plan that operates from the top down. Is my interpretation of the roadmap correct? Will a land use plan be devised?

Deputy Richard Bruton: I understand that there are a number of ongoing pieces of work on the concept of agricultural evolution and land use development. Part of it came from the climate advisory committee and Mr. John FitzGerald is undertaking work in this area. The Department is also committing to engage with all stakeholders, not just the farming stakeholders, to evolve what it describes as a roadmap. The Common Agricultural Policy must also be evolved. As I have seen from the comments of the Commissioner, there is a very strong appetite within that. Indeed, it is written into the new policy that 40% of the money must be assigned to work that improves the environment and improves carbon emissions. That body of work will incorporate the ambitions that the Deputy mentioned. I am not sure whether that meets what he described as a land use plan. I cannot say that this exactly what he has in mind. The ingredients are the same and there is a clear ambition that we need to see the evolution of our agriculture sector in a way that futureproofs family farm income. If family farm income does not recognise that the world is changing, that the expectation of consumers are changing

and that we, as a farming country that exports 90% of our output, must be conscious of what those who buy our product expect in respect of the certification of the environmental standards being applied. I know a little about that from being on trade missions and being responsible for presenting the case of Irish produce. I envisage that the roadmap is very close to what the Deputy has outlined and, therefore, I think it will meet that.

Deputy Eamon Ryan: I have criticisms but my central criticism is that the transport section in the plan is woeful. There is a complete lack of ambition for change or for efficiency and long-term decarbonisation. The Government is sticking with our current transport plans and converting diesel cars into electric vehicles. While I very much support electric vehicles, the change is not sufficient. First, rather than just saying there will be 860,000 electric cars, the Government should make car sharing happen. The State may achieve the same reduction in emissions and the same transport service by only buying half, a third or a quarter of those cars, which may be much more achievable.

Similarly, I refer to the lack of any other vision for a switch away from our current road-based transport system, which has led to further sprawl. It is fundamentally unsustainable and impossible for us to meet our 2050 net zero target if the State continues with what the Department of Transport, Tourism and Sport is overseeing, which is a massive continuation of long distance commuting and sprawl, a major use of resources and ever increasing building out and out, and a road-based system that can never be climate ready even if the entire fleet comprised electric vehicles. The Government must address the gridlock we are facing and the social and environmental costs of consumption of an individual car-based system. I accept and welcome the Minister saying it is an iterative process. However, the first thing that has to go in that context is the transport section. This or another Government will have to come back with something completely different as this does not deliver. I have set out some of the reasons why at the transport committee. It completely fails to address the scale of the challenge. What was the level of co-operation from the Department of Transport, Tourism and Sport? Why did it not come back with anything other than, in effect, a daft scrappage scheme for which there is no detail and a congestion charge hint that does not mean anything. It is just about certain electric vehicles. After two or three years in everyone's crosshairs, this is the one Department which is failing completely to address this issue. Why has it come back with nothing else? Why is it failing so clearly in its responsibilities?

Deputy Richard Bruton: Public transport does not represent an effective substitute for a great deal of the travel and transport that generates a carbon impact. That is part of the problem we face. When we looked at and got the professional advice on the degree to which modal shift would contribute, the unfortunate answer was that the contribution of modal shift to the reduction of carbon emissions will be surprisingly low. I was surprised myself. We have to focus to a great extent on changing the type of travel that occurs while moving to electric vehicles which represent a very strong opportunity for us to meet our carbon emissions targets within an early period. I do not accept Deputy Eamon Ryan's view that modal shift is not a major part of the change that is coming. While it may not have a great impact on carbon emissions, it can have a huge impact on quality of life, in particular in our towns and cities. There is a very welcome change in the new strategies that will emerge on park and ride, cycling and the new capacity of local authorities to introduce measures in their own areas to improve the modal split and the environmental soundness of what is happening in transport locally. We look forward to those five-year strategies that will have to be published before the end of the year or early next year in respect of cycling, park and ride and so on. The Department of Transport, Tourism and Sport will also make the point that if one compares new public transport at, from memory, €8 bil-

lion with new road spending, which is much smaller at €3 billion or €4 billion in the plan, the comparison is not far off the 2:1 proposal. However, 2:1 is not the way we should be planning infrastructural choices of this nature. One of the important decisions in the plan is that anyone planning any public investment will have to price carbon on the basis of a trajectory reaching €265 per tonne by 2050. That will undoubtedly change the type of investments chosen within the national development plan. However, there are needs with regard to roads. Other Deputies will indicate that there are needs at critical points where new road investment is needed.

Transport will continue to have to make significant changes. For the first time in this plan, we have a very ambitious target for transport to reduce its emissions. Members will have seen over recent years that transport has consistently expanded its emissions. Deputy Eamon Ryan is right about that happening nearly throughout the whole period. Even before the recovery started, there were signs that transport emissions were increasing. This is a massive change in the direction of travel to which the Department of Transport, Tourism and Sport has committed with regard to the carbon emissions the sector generates. There are major commitments to improving public transport while also changing fuel use and developing strategies to align travel to a greater extent with compact living, which we all desire to see. In BusConnects, we see the ambition that exists not only to improve bus services but to add 200 km of safe, separated cycling. There is a significant ambition regarding a shift from where we have been. I commend the Department of Transport, Tourism and Sport for stepping up to the plate and for taking responsibility in this area. As with every other sector, we expect the Department to deliver on what it seeks to achieve here.

Deputy Bríd Smith: I thank the Minister for attending. As I usually do when we deal with this issue, I refer to the IPCC report. It is worth couching everything we do at the committee in the words of the report which stated that we need far-reaching, unprecedented and radical change. When the fanfare dies down, one has to look past the layers of green clothing that mask a business opportunity for industry, corporations and, in particular, private finance. The Government's report referred to the phasing out of our reliance on fossil fuels. Is the Government going to continue to block the Bill calling for an end to the issuing of exploration licences? Can the Minister explain how, if we are to phase out our reliance on fossil fuels, we can continue to support the development of runways and airports? Indeed, the report does not look at the aviation industry at all. There is no measure within it regarding the aviation industry's contribution to emissions. We are supporting new runways and the development of LNG terminals. That contradicts fundamentally the aims set out in the report.

An issue that really jumped out at me is the absence of any attempt to put the burden of dealing with the crisis on global corporations in the fossil fuel and food industries which make billions in profit. The burden is entirely placed on changing individual behaviour, including individuals who are as well off as the Minister or as poor as the Travellers I met this morning who are dealing with fuel and energy poverty at halting sites. The Government has committed to attracting data centres to Ireland and it is estimated that 30% of our energy production will go to keeping those centres open. The solution proposed is to urge and plan for corporate power purchasing agreements, which are described as long-term contracts under which a business agrees to purchase electricity directly from an energy generator. Where did the idea come from to litter the country with data centres using up 30% of overall energy production and most of our water while being powered privately by energy companies dotted around the State? It did not come from the Citizens' Assembly or the joint committee. Did it come from someone the Minister knows such as a former head of the Department of Public Expenditure and Reform or a Secretary General in the Department of Finance? It strikes me as a business plan writ large

that would do more to damage our capacity to reduce emissions.

I agree with Deputy Eamon Ryan on the woeful attempt to deal with public transport. In fact, there is no attempt to deal with it. I heard the Chairman explain that on TV3 last night by saying it was all contained in the capital development plan. However, that is not so. That plan commits itself only to BusConnects which, for example, only puts a couple of hundred more buses on the roads in Dublin than were taken off the road during the austerity years. There is nothing there to help us deal with what is required, namely a massive increase in frequent, free, or at least much cheaper, public transport in every town and village and not just in Dublin, Cork, Waterford and Limerick. Unless we provide that, people will rely on their cars. They have no choice. During the election campaign, I listened to Saoirse McHugh, who became a very popular figure overnight because she was so radical and passionate about climate change. She was a Green Party candidate in the west in the recent European elections. She described her life on Achill Island noting that there was one bus out in the morning and one back in the evening. Her house is 200 years old. She asks how she can cut down on her carbon emissions if she does not have proper public transport and help to retrofit her house. It will continue to require burning coal to heat her home and diesel to run her car. That is where the bulk of Irish society is at. Despite all the commitment to private financial loans being available left, right and centre to people, the vast majority of people in this country - in middle Ireland, as it is often described - cannot afford to take out loans of €40,000, €50,000 or €60,000 to retrofit their homes. Middle Ireland cannot afford to borrow to buy an electric car in the morning and start paying back the loans. Most people struggle to pay their mortgage, rent and to get to work in overly expensive private transport because public transport is not available to them. This is a disaster of a plan. I will quote a part of the Minister's plan which sums up the attitude of his Department:

... those inflicting the damage do not pay the cost of the damage they inflict. This is the rationale for charging a carbon price for carbon emissions which reflects the growing damage that they are inflicting. This serves to discourage emissions and to make carbon abatement more profitable.

I would agree with that statement if it applied to the fossil fuel corporations and global corporations that abuse this planet through the overproduction of plastics, goods, oil and gas and then force us all into situations in which we use these products. However, it does not refer to them but to ordinary people in this country who the Minister says must change their behaviour, while giving them no help to do so except to tell them to go to the private financial market. The IFSC will gloriously come up with innovative ways to deal with this. Was it not great when it came up with innovative ways to help companies to evade tax and to create Ireland as a tax haven? This is a very damaging document when one looks at the lack of an attempt to really deal with the problem. Colleagues have spoken about electric vehicles but I do not understand how, in ten years, the Minister is going to get almost 1 million electric vehicles into this country. The production and importation of those vehicles somewhere on that planet, though maybe not here, will create a massive amount of carbon. We instead need a massive amount of public transport that is frequent and free.

With regard to retrofitting homes, three families came to me in my clinic on Monday. I have written to the Minister about this and have his replies. In one case, the family is earning €5 per week more than what would qualify them to be determined as living in fuel poverty according to the Department of Employment Affairs and Social Protection. They are not entitled to a fuel allowance because of €5 extra per week. In the other cases, it was €7 and €7.50 extra each week, yet they are families who live to the pin of their collars to try to heat their homes. They

must turn on the gas, burn the coal or the peat briquettes because they have no other choice. In most of those cases, they also have varying health issues such as arthritis or lung disease but they do not qualify for an allowance. Nothing in the Minister's document deals with them or with the Traveller community which launched a report on fuel poverty among Travellers this morning. I was the only Deputy who attended that. They invited four different Ministers and they were all unable to attend. It was a disgraceful abuse of a community that we celebrated in this House just a couple of years ago.

The best thing that we could do, instead of passing a motion that declares a climate emergency, is to pass a legislation, as the Government passed financial emergency measures in the public interest, FEMPI, legislation during the financial crisis. Let us pass climate emergency measures in the public interest that will allow us to borrow massively at a very cheap rate for the country to invest in publicly-owned renewable sources, not to put it out for tender to the private market to see what company might be able to build offshore or onshore energy generators. Have we not learned about private tendering from the broadband and children's hospital examples? If one wants something done in this State, the State must take it by the short and curlys and do it itself. This document does nothing about that. It throws the responsibility entirely back at the market which is responsible for putting the globe in the danger that it is in already.

I ask the Minister to specifically address where the idea came from that date centres would somehow be a great solution to reducing emissions or helping our society or economy. Where did the idea of corporate purchase power agreements for electricity come from? In ten years, how will the Minister deal with the question of nearly 1 million electric vehicles being purchased in the country when the majority of people cannot afford to buy one? Will he comment on the lack of any mention in this document of aviation emissions and the support he is giving to introducing new runways?

Deputy Richard Bruton: The difficulty I have with Deputy Smith is not her commitment but that she applies the same old ideology to every new problem.

Deputy Bríd Smith: So does the Minister. That is his problem.

Deputy Richard Bruton: It simply will not resolve the challenges that we face here. The Deputy said that there is no help to do anything except to go to financial institutions and then she made a pitch for an adjustment of the means test on a scheme that provides 100% assistance to people in fuel poverty to do exactly what the Deputy is asking for. There is clearly State support to help people. Some 32,000 homes undertake retrofitting every year and all of that receives support from the State. People are changing to electric and hybrid vehicles. That has increased sixfold so far this year and the State is supporting those people in that change. There is a grant of €5,000 from one's vehicle registration tax, VRT, a €5,000 subsidy and a subsidised electric vehicle charger. Many people are making that choice. As technology becomes available and the price of changes reduces, more people will make that change. The State will design a scheme to make it easier for people to take on the retrofitting challenge.

We are devising ways of doing this that will help people to make the change. That is the right thing to do in this situation. Many people recognise that and we have taken advice from the Climate Change Advisory Council which was established to help us to do this. We are taking up much of its advice and the advice of this committee. That is how electric vehicles will be taken up. We purchase 280,000 vehicles each year so our aim is that 960,000 of those would be electric vehicles by 2030. That is achievable. I believe that technology will make that possible and people will not only have a better environment but also cheaper costs. The cost of running

a petrol car is eight times that of running an electric vehicle. There are savings to be made. People will make decisions that are in their long-term interest.

The evolution of data centres is not an invention of this document. The reality is that data centres are being established here. We need a strategy to manage the demand that is coming from data centres which is part of the evolution of the digital society. We need to manage it in a way in which it does not put excessive strain on the targets that we are trying to achieve. This is about better regional allocation of such investments but also seeing that those companies would seek to make their own arrangements for securing sustainable renewable energy to serve their needs, so that the needs of those multinational companies would not all fall back on the State. As the Deputy rightly says, they should carry some of their responsibility.

The airline industry is part of the emissions trading system. It is not a sector where we have a legal obligation to make changes in Ireland. It is part of a global European emissions trading system. We will support changes in that emissions trading system to demand more contributions from those airlines in making the change. I hope I have responded to all of the points raised.

Senator Máire Devine: Following on from the good work of this committee and the expert advice that we should take pride in being a leader in Europe in terms of climate action, unfortunately, our competition is very poor. If we are the leader and we are facing fines then the rest of the world is in a sad, sorry state. This action needs to be immediate and robust if we are to retain our ranking and maintain the world as a safe place.

A number of people have touched on transport and, in particular, the implications of transport emissions on public health. Has there been analysis of the likely reduction in air quality in city suburban rings from the expanding park and ride facility, which is lauded as a way to ease congestion and to encourage people to use public transport, which often does not have the capacity to cater for them? I refer the Minister to a study on congestion charges, nitrogen oxide levels and carbon dioxide increases in the suburbs where commuters were converging to park their cars in London and other cities throughout the UK and I ask him to comment on it.

Another transport-related issue is the Shannon Foynes waterway, which was committed to some years ago. There is nothing in the report that might result in a waterway conclusion for sustainable transport policy. Has there been a feasibility assessment of the use of the Shannon Foynes waterway for waterborne barge freight as per the terms of reference for a sustainable transport review? Like many of my Dublin colleagues I have been involved in the BusConnects consultation. This project is a €2 billion investment that would take seven or eight years to complete, if it were to be agreed. It is nowhere near agreement at the moment and the plan is to continue to purchase a diesel-only bus fleet. We have to change the record and draw a line under that. Time and again, I have raised this issue with the NTA but it is sticking to a diesel fleet, which means that even if BusConnects goes ahead tomorrow, in 2028 this city would still be serviced by diesel bus transport. We need to change this as it is reflective of the seriousness with which we view transport pollution and the quality of our air.

On a fair transition, which the Minister talked about earlier, the International Labour Organisation, ILO, has laid out a framework of the steps needed in regard to that transition, which has been included in Sinn Féin's minority report. It provides a template of what is needed for a fair transition that is understood by workers and communities, not just in the Portlaoise area but throughout the country. For example, in regard to the electric vehicles, EVs, which we are all being encouraged to purchase, affordability aside, we need to know who will maintain and

repair these vehicles when they break down. I presume it will be a person qualified in electronics rather than a car mechanic. Is this skills provided for in the apprenticeship programme? Are we specifically training people to perform that task? Under this plan, boilers will become defunct in a couple of years' time. Are we likewise training people in the skills necessary to maintain and repair heat pumps? To achieve the just and fair transition that we need, we will have to encourage the 300,000 young people who left this island, taking their skills with them, to return and upskill others in this area.

The cost of retrofit was touched on as well. The cost of retrofitting a large home is estimated to be €60,000. One would not see a return on that amount for 33 years, which does not incentivise lending in this area. I am not sure what we can do about that. Roof and attic insulation is cheap and effective. Every building could be brought up to that standard without too much financial outlay. We must be careful not to scare off householders that would not have €40,000 or €60,000. Following completion of that work, we could move to the next level of insulation to reduce emissions as well.

I would welcome a response from the Minister on those issues.

Deputy Richard Bruton: The Senator is right that the development of a park-and-ride strategy will have to examine air quality and other issues such as location, traffic management and so on. There is no doubt that park and ride and, as mentioned by Deputy Eamon Ryan, car-sharing, can contribute. This is a low-cost way of delivering change. All of these alternatives need to be developed. This plan is open to sensible suggestions as to how those can emerge.

I confess I do not know if the Shannon Foynes waterway is part of a plan. We did not get down to that level of individual project. On the bus fleet, from 1 July there will be no diesel-only buses purchased. I know there are complaints about BusConnects but the central strategy of providing for a more integrated system, albeit requiring people to make changes at certain points on their journey, is attempting to integrate-----

Senator Máire Devine: On a point of order, there will continue to be diesel-only buses because they already have been ordered. This needs to stop.

Deputy Richard Bruton: Some buses that were ordered last year are being delivered this year. From 1 July, however, no new diesel-only buses will be ordered. Any of the buses that are being bought at the moment are replacing buses that have a far worse carbon and air quality impact. As we move towards electric vehicles, one of the advantages, apart from the carbon, will be the reduction of the air pollution that goes with fossil fuel burning vehicles.

On the transition to new sectors, the Senator is right that we do need to develop the apprenticeships and traineeships. To be fair, we have been through a much larger transition in terms of the sectoral make-up with the collapse of the construction sector from 12% of employment to 1% or 2%. It blew away a lot of apprenticeships and traditional opportunities. We have managed to see these people retrained and absorbed into other sectors. We now have a much more robust mix of sectors. We have to do the same now in terms of moving from some of the more traditional fossil-dependent sectors to new sectors. We have the capacity, with a just transition strategy, to make those changes and to support people to make the changes. We will be well able to meet the needs of people in terms of retrofit of their homes. These are skills that can be learned. They are largely blue-collar skills and there will be a tendency for some of the new technologies to displace blue-collar workers. There is an opportunity for identifying opportunities in microgeneration and retrofitting, as well as in the bioeconomy and so on, that have a skill

mix that can be very positive for those who need to redeploy into new areas. This is central to the plan. The education and training boards, ETBs, the institutes of technology and the bodies that are transitioning to technological universities will have to step up to the plate in this area. As an aside, we need those agencies to take on more mature people rather than gearing up their systems for only younger people coming out the schools.

The Senator is right that some retrofitting can be very expensive and some can be very cheap. The Senator is right also in advising that we start with the shallow retrofit. In adopting an area-based approach, we can do that on a scale and make it easier for people to take on. If all they want to do is the shallower retrofit, that can be possible, but, of course, we will need to see people moving to carrying out deeper retrofits over time. The figures are on the SEAI website if the Senator is interested in seeing them. It is less than €2,000 for a cavity wall for a very strong improvement in the fabric. The figure for an external wall is €14,000. It is much more expensive to achieve the same thing. Clearly, there is a rationale for us to start with cavity walls and move to deeper interventions as a system evolves. The Senator is right to suggest we do the sensible things first that will yield a result. We should not seek to scare people off by bigging up the most expensive possible retrofit to a very large house in a very isolated area with very bad heating systems and so on. For a lot of people, the changes will be more modest and affordable with a quicker payback. However, over time we will need to accommodate the deeper changes such as moving to heat pumps, heat controls and deeper retrofits. Once we start this journey with a credible model which we need to design, we can ramp it up.

Deputy Brian Stanley: We see some parts of the plan falling short. We looked for the sectoral targets and commitments and the governance structure, all of which are welcome. Straight lines of accountability and measurements give us something on which to work. We have to reduce greenhouse gas emissions by 80% at an absolute minimum by 2050. The clock is ticking. With the plan, we should have a minimum of 20% done within the next 18 months, but, obviously, we are not going to do that. By 2030 we are looking at a 20% reduction. That will leave us with a 60% reduction to be achieved within the following 20 years. There was such a thing as the swinging 60s. People refer back to decades in which there were major changes or upheavals. I think the 1970s were supposed to be socialist, although, unfortunately, they were not. We will have a big transition to make in the 2020s. Even allowing for a brown to green revolution in the 2020s, there will be a massive catch-up required in the following 20 years, about which we have huge concerns. I welcome the sectoral targets and governance commitments because for the first time they give us a straight line in terms of accountability and oversight. During the debate on the low carbon climate action Bill five years ago, I pointed out consistently, over and over again, that it was a fatal weakness of that legislation.

On a just transition, I see Portlaoise mentioned in the plan, which is good. It should be a test case or trial for what can be rolled out in other towns. It should go past the two prisons and the two hospitals. There are communities that need to be brought in also.

On the midlands and support for the regional transition team, we have to get away from putting task forces in place when an event is happening or has happened. We have argued from the beginning that we need a just transition commission. A range of things are going to happen. Motor mechanics who have upskilled and completed their apprenticeships will find that their skills will be out of date. Apprentices this year will be okay as most of them will have the required skills. There is Moneypoint, as well as several other places where a transition will be made. I ask the Minister to address that issue.

On retrofits and a just transition which are mentioned in two separate parts of the document,

in the midlands and other parts of the country a lot of workers will be affected. On the other hand, we have this great need to do a lot of expensive work in retrofitting. There is the question of financing it. A lot of households do not have the earning capacity, while others that do have it find it is soaked up by childcare and commuting costs and in paying existing mortgages from now until kingdom come. They will not be able to access the €50,000 or €60,000 in finance required to undertake the retrofitting. We need to deal with that issue. These are big challenges for us.

Another challenge is finding the skills and labour required. There are still about 160,000 people unemployed. I do not want this to be taken up the wrong way, but I deal with a lot of foreign workers who are doing fine in working here. They have brought skills and energy, which is all good. However, we do not have houses to house people. We were caught in a perfect financial storm ten years ago and are now caught in a perfect storm in providing housing. We do not have the skilled workers required to build or retrofit them. If we bring in more workers, we will not have places in which to house them. We are caught in a bind. There are probably a number of parts to the solution. I suggest the Oireachtas needs to make a decision on the 160,000 people who are unemployed. We need to decide to train and upskill a section of that workforce. As the Minister said, we have SOLAS. We also have the education and training boards, ETBs, which have been modernised and are working better than the old vocational education committees. We have major training centres, including in the midlands. We need to move ahead to start upskilling those workers to fill the vacancies and carry out the work of retrofitting that will be need to be carried out across the State. We have big semi-State companies, some of which are diversifying. Bord na Móna is going to move towards producing green energy, but that will not replace jobs. The morning I started working in Bord na Móna there were 95 others starting with me. That will not happen in the industries it is moving into. I am not arguing against the changes, which have to be made. However, it has a great history of offering apprenticeships. Some of my family were trained as apprentices in it. It is an area we need to consider as it is a company with a history and the infrastructure to do it.

Biogas is dealt with on page 41 of the document which we received today. The actions include “carry out a public consultation”; “develop and update a feasibility study”; “set a target”; “assess potential impacts”; “consider” and “examine the potential” of something else. It is a little fluffy and does not do the business. I published a microgeneration Bill over a year and a half ago and it is now before the committee. I ask the Government not to hold it up by stating a money message is needed or any other last minute booby trap. We are wide open to amending it. My party brought it forward deliberately to kick start the debate and also to try to get legislation in place. As I said, we are wide open to working with those on the right and the left, in the centre, the Greens, or anyone else to get it moving.

I attended the Committee on Budgetary Oversight meeting yesterday because it was dealing with these issues. I raised issues with the panel in attendance, including Professor John FitzGerald. I am sorry but I forgot to make a point about retrofitting. There is a demand for housing but according to the ESRI, with the current workforce, every nine houses we retrofit results in one less house being built.

Chairman: Will the Deputy address the biogas issue? I am conscious of the number of members waiting to contribute.

Deputy Brian Stanley: I raised the issue of biogas with Professor FitzGerald in the meeting yesterday. The ESRI believes that up to 20% of electricity can be produced from biogas because of our large agricultural sector. I have a constructive suggestion to make to the Minis-

ter. That issue needs to loom larger in terms of our plans to meet targets relating to dispatchable electricity generation because the wind does not always blow and the sun does not always shine at times when there is a greater need for electricity such as very cold nights. We need to develop renewable gas and put that issue centre stage.

Deputy Richard Bruton: I thank the Deputy for the acknowledgment of some of the good recommendations in the report. The Deputy is asking the same question Deputy Eamon Ryan asked earlier, that is, whether we are leaving too much for the 2030 to 2050 period. I will give the Deputy the same answer. We do not have the same certainty around the costs and the choices in technologies needed to make those decisions now. We could make bad calls by picking wrong technologies and sinking many resources into technologies that do not evolve. We have taken the best advice on the evolving technologies and have picked the ones that show we can deliver by 2030 with the least burdens being imposed on people.

The next phase will need more work. I have told Professor FitzGerald, and I am sure he has said this to the Deputy, that we need more research to be done on that next phase. We will start to do that work ourselves but much work is probably needed to identify the sort of technologies that should be adopted over that 20-year period from 2030 to achieve the net zero.

On the issue of just transition, I was gratified that when the difficulties arose for Bord na Móna, under the regional enterprise strategy I was party to putting in place, which was to have regional enterprise strategies in every sector, the midlands regional strategy immediately moved to adopt decarbonisation as a central plank of its strategy. It is using the regional enterprise fund and the network it has developed to deliver that. I found it heartening to know that something decided upon in tougher times when we were simply talking about trying to get jobs off the ground is in place to deal with adaptation which is occurring.

I also make the general point that in the space of ten years, we have come from an economy that lost 120,000 jobs in construction and created well-nigh 500,000 jobs in other sectors. That was a phenomenal transition. I have read the stories of people who lost their job, took on Springboard, took on a traineeship, reinvented themselves and are back in that economy. We need to make that easier for people to do. I share the Deputy's belief that the education and training boards, ETBs, are very well placed to do that. We will be relying on them to respond to the change so that as retrofitting starts to take off, they are responding with the skill base.

I would argue with my former employer, the ESRI, saying that every nine houses we retrofit results in one less house being built. Many colleagues I talk to say that there is not much house construction going on in many counties and constituencies. There is capacity for people to do retrofitting in some areas not experiencing that sort of acute demand for housing and house building, and it does not have the displacement effect the Deputy spoke about. However, I acknowledge that there is a capacity and we need to plan for it. We are committed to doing that.

The Deputy should not say that everybody will have to face a bill of €50,000 to €60,000. If someone has a cavity wall, they can do that for €2,000. If one does not have one's attic insulated, one can do that for €1,000. One can put in heating controls. Many things can be done that are not those huge asks, so to speak. I agree we have to start to do deeper retrofits but we want to get one third of the houses retrofitted by 2030. We want to get on a roadway where people are doing more of that. For many homes that will be possible, and we will support them to do shallower things on a journey over time to deliver that. We should not put people off by saying they might suddenly have to face a huge bill. We can evolve that and develop the system.

On biogas, it goes back to the point made at the outset. The reason we are reticent and saying we need to assess this is because, on the cost basis, it does not look as if it is in the area of the curve where we need to move immediately. It is further up that curve and until we test and assess its capacity, we need to do more work to see the role biogas will play. Many people say that burning biogas in a power station is not a good policy. We are supporting it in combined heat and power situations where one is getting a much better bang for one's biogas buck.

Deputy Brian Stanley: The Minister is talking about biomass there.

Deputy Richard Bruton: It is right to be more cautious about some of the technologies. My understanding of the position on biogas is that there is more work to be done to prove its contribution and the timing at which it should come in.

Deputy Brian Stanley: On a point of order-----

Chairman: Deputy, the Minister dealt with biogas. He mentioned biomass also.

Deputy Brian Stanley: I have a final question.

Chairman: The Deputy must be very brief. He is way over time.

Deputy Brian Stanley: The Minister spoke about workers being available. He is correct that there is not much house building in some counties but in many cases the workers in those counties work in construction in the cities. In the midlands, for example, there is a fairly high unemployment rate but there is not a ready availability of construction workers. I am pointing out to the Minister that builders cannot get construction workers. We need to upskill those workers.

Deputy Richard Bruton: There is a commitment that the ETBs will take an active role in trying to develop these skills bottlenecks. They are already doing it. I ask employers who are having difficulty to come forward and take up the apprenticeships. When I was in that Department we were evolving new and old apprenticeships but not enough employers were coming forward to support them. Employers need to recognise that they have a responsibility to share in taking on apprentices and creating those possibilities for young people. There is an appetite and a desire to deliver apprenticeships.

Chairman: I call Senator Mulherin.

Deputy Tom Neville: I have to leave but can I make a suggestion for the next day? We are quite a large group and I suggest there would be some sort of speaking rota or some sort of-----

Chairman: Because we reverted to being an ordinary committee, we moved away from that but we might agree that.

Deputy Tom Neville: Even through party leaders as in the D'Hondt system.

Chairman: Yes. As this is following the all-of-Government plan I wanted to give members a chance.

Deputy Tom Neville: Yes, but it has been two hours and I have to leave.

Chairman: The Deputy will be called after Senator Mulherin.

Senator Michelle Mulherin: I wish to acknowledge that this plan is the most substantial

and comprehensive environmental and climate action document produced by any Government in this country. There is a great deal of joined-up thinking in it because of the comprehensive consideration given by this committee in producing its report, the Citizens' Assembly and the work done by the Minister and all the Departments with which he worked. Notwithstanding that, it will be a massive challenge to achieve what the Minister is trying to achieve, which is to take carbon out of our economy and our lifestyles and, as a consequence, provide cleaner air, cleaner water and all the other good things that can flow from this. We only have to look to Canada and Prime Minister Trudeau's green agenda, the *gilets jaunes* movement in France and the row-back on carbon tax. This can be even more divisive than climate change, not to take from the changes in climate that result in catastrophes around the world. The very people who say we should do something about climate change will not help one bit. They do not have any solutions. They are full of criticism. While we can understand that the ordinary person can be fearful of so many changes and their cost, no solutions are being provided by the detractors. That is the truth. That is where dialogue is needed. We have to remember that dialogue is about just transition. How do we make it fair? How do we balance it? If we agree that something needs to be done - and it seems there is a general consensus to that effect - it is no longer enough to point the finger at agriculture, some other sector or somebody else. This is tough and difficult.

This comes back to the issue of dialogue with the public. A report prepared by NESC a couple of years ago examined delivery of renewable electricity. One of the most significant issues was not cost but community acceptance. It all goes back to that. This is about how people feel about this in their individual communities and how it impacts on their lifestyles. The Department of Finance is working on carbon tax and how it might look to facilitate that dialogue. We are trying to find innovative ways to engage with the public. At the moment, however, pursuant to our national planning framework, the regional assemblies are charged with the delivery of regional economic and spatial strategies. We are talking about fundamentally overhauling lifestyles based on fossil fuels and the technologies emanating therefrom, including the internal combustion engine. We have not invested in renewable energy. This means that renewable electricity is now more expensive to deliver than electricity from conventional sources. Can a specific climate change element be added to the ongoing process of developing regional spatial plans under the national planning framework? That way people can be encouraged to engage. This could be brought down to the level of local authority areas' development plans and coordinated with the regional climate change offices the Minister has established in the regions. That joined-up thinking could help us determine where to put charging points, what we need to do and where to put infrastructure. We must think about the bigger picture.

Second, now that the all-of-Government climate action plan has been produced, will the Minister amend the draft national climate and energy plan he submitted to the European Commission in December, which is now in draft format? I understand the Commission is to revert to the Department with its views. In what way might that be changed? There is a lot more consideration of and focus on climate change than ever before. I would like to see how one document fits into the other.

Returning to the issue of communities, there is a lot of talk about microgeneration. It is important that people feel they have a stake. We will have to acknowledge the reality that most communities do not have the money to develop renewable energy projects. We have to find other ways for people to enjoy the benefits. I know the Minister's Department has a code of practice for wind farm development. These projects are being developed at the moment. Unfortunately, the envisaged community benefit is a lump sum per MW to the benefit of the

community. It gives no recognition to the fact that some people live beside wind farm infrastructure. There needs to be another layer which benefits individual households. I live near the Oweninny power wind farm, a joint venture of Bord na Móna and ESB Networks. The community accepts it. However, it is a sparse rural area. The households immediately beside the site will get no particular gain. They are looking for reduced electricity prices. ESB Networks runs a near-neighbour scheme but there is no Government guidance on it. The local authority does not seem to be able to deal with it.

We have to recognise that some people will be asked to bear more of the burden than others. There must be more than a community gain whereby money is given to a community centre 15 km up the road, which most people are never going to use. I will bring further details to the Minister. I have put it to the Chair that the committee must examine this issue in more depth, but I want to flag it with the Minister. There is a deficit in the code of practice for wind farm development.

I commend the objective of decarbonising transport. There have been a lot of contributions from the city folk among us. I can see that if I lived in Dublin or Galway I would need public transport. However, when the commentary turns to rural areas, it sounds like a parallel universe. We need roads to put the buses on. We will not get a bus every ten minutes as one can do in a city. It is not enough to rubbish the idea of electric vehicles or say they are insufficient. We need roads so that all the development and economic and social growth does not end up in the cities. There are whole regions, the west and north west, which did not get roads during the Celtic tiger era. They are acknowledged as being disadvantaged as a result. This veers into unreality, like some of the talk about agriculture. The idea of not spending money on roads is crazy. We will not be putting a train into every village and up every bóithrín in rural Ireland. It is one thing to tick a box. There is no comparison with something running every ten minutes.

The best initiative for rural Ireland is the national broadband plan. Broadband means people will not have to get into their cars. The sooner that can be rolled out the better. There is a lot of talk about the market, commercial investment and intervention. They has all been tried. We should support the national broadband plan. It is not commercially attractive and that is why the Government has to spend money on it. There has been so much warped commentary on the plan when it is exactly what is needed for connectivity in rural Ireland. That is not just relevant to economic growth; it also pertains to medical interventions in the future, remote diagnosis, etc.

I refer also to the SEAI and its better energy warmer homes scheme funding. As the Minister correctly pointed out, the most disadvantaged people in our society, who qualify for fuel allowance, get their homes retrofitted 100% free of charge, which is welcome. I want to ask the Minister about a current issue that I have flagged and that has not gone away-----

Chairman: The Senator must be very brief. She is going into issues now.

Senator Michelle Mulherin: It is to do with the better energy warmer homes scheme and how we are going to fund retrofitting. I know of private sector contractors doing this work. Plenty of people are willing to do it. I do not know what the deficit is. Not only is future work being put on hold, contractors are not being paid for the work they have done. They wait for months. There is a problem in the SEAI, and I would like a clarification on when they will be paid. People are looking for their houses to be retrofitted. When will that be done?

Finally, I welcome the approach taken in agriculture whereby we will seek to implement the

objectives in the Teagasc report, which provides a roadmap for this sector. Agriculture is big in our county because we do not have heavy industry. That is why it accounts for so much of our emissions. Several members of the Joint Committee on Agriculture, Food and the Marine and I had occasion to meet delegations from China, Russia and other countries outside the European Union. They do not have a bit of interest in carbon emissions reduction. They wanted to compare notes on the experiences and challenges of farmers. Their farmers do not have the equivalent of the CAP. However I would like further strides to be made in recognising the efforts made to date by our farmers in the dairy and beef sectors and across the board in reducing carbon emissions per unit. Our farmers should be championed for more carbon-efficient production. Food is not an optional extra. We need to eat and we want our food to be produced in the most carbon-efficient way. Our farmers should be championed for their efforts in that regard. There will be a big challenge in terms of our farmers being crucified over climate action while countries with which we compete and which are bigger markets into which we sell really do not care.

Deputy Richard Bruton: I welcome the support, passion and insight of the Senator on this issue because it is not easy and she rightly homed in on community acceptance. We are seeking to do several things to build that up. One is that every public body, such as local authorities and the HSE, is being asked to adopt a climate change mandate. I hope that public leaders in every community will adopt a strategy and attitude in their interactions with clients, suppliers and workers that this is a change we need to make. The Senator's local authority is taking a leadership role in that regard and has an ambition to have a carbon-neutral strategy.

Her suggestion to use the regional spatial strategies to embrace the physical change is a good one. If I announced 100 years ago that an underground tank containing highly inflammable fuel was to be installed in every village and that people would be expected to dip into it to fill up their cars, there would be a huge reaction against that proposal, but petrol stations are now part of the furniture. There is a garage with a forecourt in every town and village and people do not bat an eyelid. This will involve change. We are not used to the technology or infrastructures we need to be sustainable. Rather, we are used to the infrastructures that make us unsustainable. As the Senator pointed out, there is a real issue in terms of how we socialise that structural change in our society. We are trying to maximise community gain and participation, including local people being close to facilities that are being provided having sustainable energy communities and having mandates for every public body. As a result of the green schools programme, many children go home and lecture their parents on the weaknesses of some of their behaviour. We are starting to wheel that scrum, but there is far more to be done.

We will amend the national energy and climate plan, NECP, such as in respect of the new target we are adopting for renewables. In the previous NECP we put our hands up and admitted that a target of 75 million tonnes was to be met, that 16 million tonnes of the target would be met from what we were doing and that another 58 million tonnes had to be found. We will show how we hope to find those 58 million tonnes across various areas of activity.

I fully agree with the Senator that balanced regional development constitutes a real and sustained challenge. On the national broadband plan, the reason we made that decision was not to bring ire on our heads about the cost of the project but, rather, because we believed that €2.5 billion spread over the next 25 years is a correct investment to future-proof rural Ireland. I will defend that decision to the last. It is the right thing to do and we will be proven right in spite of the short-term push-back which exists. It is right that everything be cross-examined and due diligence applied but we are making the right decisions.

Like every other scheme, a budget was allocated for the Sustainable Energy Authority of Ireland, SEAI, scheme and the SEAI must stay within budget. There is no doubt that one of the features of 100% grants is that demand grows exponentially when such grants are available. We need to move to area-based schemes which involve big blocks of work being done together, some of parts of which will be 100% grant funded while other parts will receive lower levels of contribution. It will be a better model when we develop that alternative.

Senator Michelle Mulherin: Has the budget been spent? The simple point is that private contractors with employees are doing as we asked but they are not being paid. They have cash flow problems which will impact on their ability to continue their business.

Chairman: We are over time on this issue. The Senator has made her point.

Senator Michelle Mulherin: I want an answer to my question.

Deputy Richard Bruton: There is a profile for every programme-----

Senator Michelle Mulherin: I want to find out whether the budget has been spent because these people are trying to plan for their-----

Chairman: We will allow the Minister to answer.

Deputy Richard Bruton: There is a profile for every theme. Where demand runs ahead of profile, there must be some constraints to manage within the available money. That is the reality.

Senator Michelle Mulherin: Does that include not paying people for work done?

Deputy Richard Bruton: If the Senator wishes to send me the details of the case to which she refers-----

Senator Michelle Mulherin: I have done so.

Deputy Richard Bruton: -----I will assess it.

On agriculture, at one level, the UN recognises that we must seek climate abatement without jeopardising food production. It is absolutely in the interests of Irish family farms for farmers to continue to drive on change to reduce the carbon impact of what they are doing and look at all of the options they can adopt to do that. In the long term, that will secure family farm income in a better way. If we make early changes in farming, we will be more fortified for the changes that are coming, as will be the case in other areas. The Senator is correct that the Teagasc map gives a very practical menu of measures people can start to take. We need more people to adopt those measures and verifiably show that they have been implemented.

Deputy Thomas Pringle: I have seven questions. May I ask each question and get an answer or would the Chair rather that I ask them all together?

Chairman: It would be best for the Deputy to group his questions somewhat.

Deputy Thomas Pringle: The plan published by the Government states that a climate action (amendment) Bill will be published early in 2020. Will the Minister commit to having the heads of the Bill published before the end of 2019 in order that we can start the review process on it?

The plan does not incorporate many of the recommendations of the joint committee, particularly on rural transport, in regard to which there is only a vague reference to a plan to be developed and no timeline or targeted emission reductions. I ask the Minister to explain why the recommendations of the joint committee on rural transport strategy, developing the Local Link service and shared mobility were not adopted.

On agricultural measures, it is business as usual. The plan states that the Teagasc plan report will be delivered. Most of these measures are cost-neutral and represent savings to farmers, but have not been implemented to date. Why is the Minister confident that these technological and efficiency measures will suddenly become so effective as to deliver emission reductions of up to 2 million tonnes by 2030?

Deputy Richard Bruton: We hope to deliver the Bill to which the Deputy referred in the first quarter of next year. We will strive to be as effective as possible in order to deliver that.

We have sought to reflect the recommendations of the committee. There is a commitment in the area of rural transport. Of course, this is only a starting point and we will evolve the strategy over time. This is the start, not the end.

On the Teagasc changes, it has been very made clear that under the next Common Agricultural Policy, 40% of the money will be linked to identifiable environmental and climate improvements that are adopted by the sector. There will be an incentive connection between making changes and drawing down CAP supports. That is one of the reasons we can expect change. In addition, farmers understand as well as, if not better than, other sectors the need to change and that if we want to pass on our planet in a better condition to our children and the next generations, we must manage it well now. Farmers are closer to understanding that. They see the relevance of and reason for the changes we are asking them to make. Like every other part of the community, part of this, as we discussed, is people recognising and buying into this being a high priority for our communities. Farmers are probably in a better place to understand that than most people.

Deputy Thomas Pringle: Unfortunately, all the recommendations from Teagasc have been made a long time and farmers have not bought into them because they have not been paid to buy into them. Is the Minister saying he is waiting for the new Common Agricultural Policy to pay farmers to buy into these measures?

Deputy Richard Bruton: As in every sector, there will be a mix of incentives and new standards will be evolved over time. That is the direction in which we are moving in every sector. In order to future-proof the farming sector, just like every other sector, we need to see new standards becoming common practice. Currently, we may only have pioneers, as the Deputy rightly said. There are many pioneers doing great things. We need to see those pioneers being mainstreamed with more people following in their tracks. We need farm leaders to be to the forefront of advocating for that. We need those buying products from farmers pushing for that need. Their capacity to sell produce, particularly on international markets, is closely connected to their ability to show there is certifiable good environmental practice. It is not only about money, rather there is a convergence of what the market and consumers need, the expectation of the community around them and what their pioneer leadership is seeking to do. We will have to combine all those because the taxpayer cannot pay for everything that has to be done. That is the same in every sector.

Deputy Thomas Pringle: On the climate legislation, the Minister said it will be dealt with

in the first quarter of 2020 but when will the heads of that Bill be published?

Deputy Richard Bruton: I do not have that information. This plan only came off the printing press on Monday, having received Government agreement to these initiatives, which we now need to move to implement.

Deputy Thomas Pringle: The agricultural chapter does not treat forestry with any sense of realism. Forestry targets are not being met and the afforestation plans are based on monocultures of Sitka spruce and large bull pine. Shifting the planting policy to native species in line with the committee's report would represent more carbon storage and a boost for biodiversity and wildlife. Yet there is no mention in the report of measures to protect biodiversity and wildlife and all the forestry recommendations are existing proposals; nothing new has been proposed. Will the Minister commit to shifting forestry towards sustainable diverse and native planting, including measures to promote agro-forestry with copses on farmlands and hedgerows?

Deputy Richard Bruton: It is my understanding that is the direction of travel. I am not the Minister with responsibility for forestry. We have a commitment to double the rate of planting. There is a move, as I understand it, to have much more mixed planting. There is a recognition that new policy instruments will need to evolve. There will be stakeholder engagement to ascertain what those might involve. The Department of Agriculture, Food and the Marine is examining what that might imply. If the Deputy wants that level of detail about the specific choice of planting, I will have to ask the Minister of State responsible to forward him a response. I do not have that detail with me.

Deputy Thomas Pringle: I have three more questions.

Chairman: Yes.

Deputy Thomas Pringle: The Minister has spoken supportively about the 70% renewable energy target in the joint committee report, which I proposed. It transpires that 15% of that will be met from corporate power purchase agreements, which means they will not be funded through the regional enterprise strategy, RES, and they will not be obliged to provide any community engagement or benefit gain measures. Will the Minister ensure the guidelines developed through his Department together with the Department of Housing, Planning and Local Authority, will ensure all planning permissions for further onshore wind farms are issued with conditions attached with respect to community engagement and benefit, and that those must be adhered to?

Chairman: Does the Deputy wish to ask his final question?

Deputy Thomas Pringle: I have two remaining.

Chairman: Yes. That is okay.

Deputy Thomas Pringle: Regarding the European Commission's response to the report, it has said we are weak in terms of the community response to the-----

Chairman: Renewables.

Deputy Thomas Pringle: -----closure of power stations in the midlands and other such matters. What is the Minister's view on that? The joint committee report recommendation was that we would have a specific strategy for those regions whereas the Minister is proposing to pass the topic over to the National Economic and Social Council, NESCC, which can only give

advice, rather than establishing a multi-stakeholder body that would be empowered to make decisions and access State resources. What is the Minister's view on the Commission's response to his report?

This is my final question. Our committee's report was strong in its call for nature-based solutions for climate action, which would help in our effort to address the climate and biodiversity emergency declared by the Dáil on 9 May. Specifically, our report recommended the development of a national hedgerow conversation strategy to ensure the conservation of these important features in the Irish landscape, which are extremely valuable to birds, pollinators and mammals. There is no coherent approach to protecting hedgerows in Ireland. There has been inappropriate management, including cutting during a period when it was illegal to do so. The destructive removal of hedgerows is the number one complaint BirdWatch Ireland receives annually from members of the public. There is no mention of the recommendation to develop a national hedgerow conservation strategy in the climate plan 2019. Why not and can it be inserted at this stage?

Chairman: Those are all the Deputy's questions.

Deputy Thomas Pringle: Yes, that is it.

Chairman: I thank the Deputy for listing those questions.

Deputy Richard Bruton: This is a plan to address our climate challenge. Separate work is being done on biodiversity. There are elements here where the Department of Culture, Heritage and the Gaeltacht, the Minister, Deputy Madigan's Department, has made significant contributions directly connected to improving the carbon sequestration of wetlands or so on. This document does not purport to be everything that needs to be done in the environment. We do not deal with biodiversity. Likewise, it does not purport to be everything that needs to be done in energy. We have not dealt with energy security, for example. What we are trying to do is to meet particular challenges. It is not substituting for the line responsibility that continues for many elements of environmental improvement or risk abatement.

As I said, the NESC, with its experience and social partnership make-up, is very well placed, given the sort of work it has done in the past, to advise the implementation board but it will be the implementation board, on which the Taoiseach and my own Department will be represented, that will devise the annual strategies and actions that emerge from that thinking. A just transition is at the heart of this and will be a responsibility of that core implementation board.

The response to the closure in the midlands has been strong. Board na Móna has demonstrated that a State company has been pioneering in identifying new opportunities as it moves away from being virtually an entirely fossil fuel company to developing renewables, resources, material management and alternatives. That is exemplary. As I said, the midlands regional enterprise strategy, which I established a number of years ago, has been in place to take up the challenge of developing an effective strategy to move the midlands into developing opportunities in the decarbonisation sector. That structure which we put in place is taking up that challenge. It is the number one of its priorities.

Deputy Thomas Pringle: What is the Minister's view on the Commission's negativity towards the strategy?

Deputy Richard Bruton: Which commission?

Deputy Thomas Pringle: The European Commission. It said that the fair and just transition could be done better.

Deputy Richard Bruton: That is its comment on that national energy and climate plan submitted last December. It is not its comment on-----

Deputy Thomas Pringle: The fair and just transition.

Deputy Richard Bruton: -----on the document we only published on Monday. We have not had a response to it.

The Deputy raised the issue of community engagement by those who develop wind farms and are not proposing to sell energy under the RES. There will be new planning guidelines for the development of any such facilities and they will apply in such cases.

Chairman: I am conscious of the time because a meeting of another joint committee is scheduled for 5 p.m.

Deputy Sean Sherlock: I apologise for being late. I was chairing a meeting of another committee. I thank the Minister for attending. I hope we can have a further engagement with him on a line-by-line basis, if time allows, at some future date. Our committee has 42 recommendations, whereas 183 actions are outlined in the Government's report. I perceive a gap between the all-party committee's recommendations and the Government's position. Notwithstanding the positive aspirations in its approach, I hope the entire Government can work with the joint committee to iron out some of the gaps. One such gap relates, as Deputy Pringle indicated, to the relevant legislation. There is a sense of urgency on the part of the joint committee in respect of the need to put in place, sooner rather than later, a legislative base for the legally-binding targets leading to 2030 and, thereafter, the net zero target for 2050, which is one of the recommendations. I am a little concerned that the Government's approach means that a Bill might not be published until next March and that it would not be enacted until the end of 2020. Another year could conceivably pass before we address the binding targets. The Minister might comment on that point.

The second and probably more important aspect relates to reducing greenhouse gas emissions from 60 million tonnes to 33 million by 2030. In the Government's plan, I do not see clear metrics on how we will do this and adhere to the 2030 targets. Respectfully, having worked with the Minister in other Departments and knowing what he has delivered, I am worried that there might be slippage and that we might overshoot the 2030 targets in favour of an aspiration to net zero by 2050. By 2030, however, we may still be far off target for our commitments under the Paris Agreement of 2015. I wonder whether there should be a greater sense of urgency for clear, bespoke actions. For community energy, rural transport, active travel and the rewetting of peatlands, for example, my fear is that within the Government, there will be a siloed approach, without a proper reporting mechanism or smacht for individual Departments to deliver on those actions. If there is not a properly overarching Cabinet sub-committee or a robust climate action delivery board, I worry that Departments will slip in their obligations to deliver on climate action. Respectfully, it is not enough for the Government to appear before the committee and say it is for, say, the Minister for Culture, Heritage and the Gaeltacht, Deputy Madigan, to examine the rewetting of peatlands in view of the fact that we already have evidence, through our deliberations in the committee, that only 1% of peatlands in Ireland are under rehabilitation or restoration. I would like to hear the whole-of-Government approach to that rather than having to wait from the Minister for Culture, Heritage and the Gaeltacht.

Chairman: Does the Deputy have more questions? I ask because I am conscious of time. Two other members wish to speak but they may not have an opportunity to do so. The Deputy might ask any further questions now to facilitate the meeting.

Deputy Sean Sherlock: I, too, am conscious of that but I do not believe I have taken up as much time as others. In summary, will the Minister comment on the delays in legislation, primarily due to a lack of urgency, and the fact that the targets for 2030 have been overshot, which is a deep worry?

Will there be a proper whole-of-Government approach to carbon budgeting and clear repercussions if individual Departments do not deliver? What is the legislative basis to enforce the legally-binding targets?

Deputy Richard Bruton: I hope I can put some of those concerns to rest. I see the process as iterative. If Oireachtas recommendations need to be developed, we will work with the committee to develop them where they can be shown to be cost-effective in a transition. It is important we choose to make the changes in the correct order, as we have taken great care to do. The only reason we were able to bring every Department with us to sign up to the targets we set is because we showed they were based on the least burdensome approach. We have been able to tell people that if they wish to have their obligation waived, they should know they are opting for a more expensive change to be made in some other sector. That approach has been important to bring everyone to the starting line. Even if there is something else we could do, as the Deputy suggested, we must ensure that it is done in the right order. There is no reluctance to bring forward legislation. From hard experience, however, as the Deputy will know as well as I, having legislation processed through the Office of the Attorney General, the Office of the Parliamentary Counsel, the committee and so on is slow. It will be challenging to meet the objectives.

We do, in fact, have a binding target. It runs until 2030 and penalties are attached. In the plan, we have set sectoral targets and Ministers will be accountable for achieving them. The legislation will slice the targets into five-year blocks and provide for more forensic analysis. Sectoral targets are already included in the plan.

The Deputy is worried we are not making sufficient effort in the period to 2030 but I have adopted what one might call a precautionary principle. I have not assumed a trajectory of high oil prices to pretend we do not need to make changes but rather that oil prices will stay low and, therefore, we have to plan for more structural change, not less. Moreover, I have not banked on the €18.8 million flexibility, where one can switch from earnings we would receive in the emissions trading system, ETS, sector to offset changes we ought to make in non-ETS sectors. It is a real, demanding target that outlines the detail of what changes need to be made to underpin it. There will be an obligation on Departments. In the coming weeks, there will be a delivery board within the Department of the Taoiseach overseeing the delivery of the 183 actions. We will not wait for a legislative underpinning to put in place that type of accountability. There will also be the Estimate. In any year where an obligation is put on the State, if we do not meet the target, it will not be shown in my Department, as is now the case, but in the relevant Department. It will be more closely attached, therefore, to the sector that falls short.

Deputy Sean Sherlock: On carbon budgeting, does the Minister envisage providing a figure for the amount saved in net tonnage? If we disseminate information for public discourse, Opposition Members like me will ask how the 60 million tonnes of emissions will be reduced to 33 million, which is the most important metric.

Deputy Richard Bruton: Yes, it is but it will be in five-year slices and Departments will know what tonnage they must abate in each period. Where it is identified that we are falling short and a cost falls on the Exchequer, the cost of purchasing credits will not appear in my budget but in the relevant line budget. Where the shortfall came from will be more visible to Deputy Sherlock and others who are looking at the numbers.

Chairman: I thank the Minister. I am sorry but I will have to ask that we try to keep our engagement to questions as there is another meeting in this room at 5 p.m. and we are supposed to get out ten minutes beforehand.

Deputy Danny Healy-Rae: This is a very radical plan which has shocked an awful lot of people in rural Ireland. They are frightened and afraid about what the future holds for them. They would not mind if the plan was practical and introduced gradually but it sets targets and deadlines without providing proper funding to people to implement the changes the Minister says they will have to make. People are telling me that the reason for this urgency and hullaballoo is that the Green Party won a few seats in the local and European elections and Fianna Fáil and Fine Gael are tripping over themselves to be greener than the Green Party. The people are going to be sandwiched in between and will suffer. A very honourable, fine gentleman in the village of Brosna told me at midnight the other night that people could listen, accept changes and try to do their best but he asked why the other larger economies and countries are not being asked to do the same. Why do they not face the same deadlines and targets? He told me that Ireland has 0.06% of the world's population while China and India have 40% between them. There are no deadlines or targets on them. Why are we being targeted? Why is our little country being targeted? They are the questions I am being asked.

This is going to hurt farmers and self-employed people in rural Ireland because they have to travel. People are used to heating their houses with turf they have cut themselves and because they have to travel long distances to go to work or wherever else, they have to use cars. They have no other transport. People in rural Ireland will not be provided with public transport. They will need their car. They will also need their tractor. On my farm I have a 1995 tractor, so it is coming up on 30 years old. I am no different from anyone else. That is what they have. A tractor is a long-term investment for a farmer. I have not seen any electric tractors so I do not know how practical they are. Who is going to subsidise people to buy them? Farmers are only barely surviving as it is. They are not going to be allowed to cut turf or burn timber when there are trees falling down all around them. This plan is not practical. If it was practical people would listen to it. Farmers have invested great sums in slatted tanks and environmental measures. They are now being told that they will have to reduce production. Looking back, they were told every day that they would have to increase production to stay viable. Will I finish?

Chairman: If the Deputy has a question, he should ask it.

Deputy Danny Healy-Rae: It is all related. We will be delayed if I go on. There are a few things there. Why does the Government not remove the VAT from low-emission slurry spreading equipment? The Minister says that forestry eats up carbon but at the same time there is a great deal of marginal land in south Kerry and other parts of the county but farmers will not be given grants to plant on it. They will be given grants to plant on good ground - green ground, as it is called - but they will not be given grants to plant on marginal ground. There is also a problem in that when storms knock down the forestry, as has happened, there is no grant to replant it. If the Government was serious about planting trees, it could help people in that regard. There are people who cannot cut down their forestry. They get their last grant payment 15 years after planting but it is not viable to cut it until 30 years have passed. It is there and

is doing the country good but, as a farmer who came to me the other day said, the farmers are getting nothing for it.

There is also another type of farmer. At one point in February there were 140 farmers who could not take out their timber and replant because they were prevented from getting planning permission for roads by serial objectors. I have asked this question in the Dáil; what is going to be done about these serial objectors? These are real issues.

There is also the issue of designations, such as that for the hen harrier. A farmer cannot establish forestry on land that is designated for hen harriers. At the same time, right on the other side of the ditch, forestry that was planted 20 or 25 years ago is growing fine. The hen harrier has no problem going into the forested area. There are ridiculous rules such as these. Another thing is-----

Chairman: This should be the Deputy's final point.

Deputy Danny Healy-Rae: Is the Minister aware that, at this present time and as I am looking at him in this room, people are prevented from buying certain types of machinery, including tractors and lorries, if they do not comply with certain rules and regulations in respect of emissions while brand new machinery with the old style of engines is being produced and sold in India, China and Africa? We are all under the same sky. We have to be realistic. What the Minister has suggested today and over the past week will have a serious devastating effect of jobs. Farmers' gates will be closed.

Chairman: I will bring the Minister in on that. The Deputy's point has been well made.

Deputy Richard Bruton: It is a mistake to pretend that there is an obligation to buy an electric tractor, stop burning turf or cut herd size. There are no such obligations in this plan. Those who are shocked or frightened should be reassured by that. Equally, however, we have to recognise that we are starting on a journey of change on which Ireland and the people whom the Deputy represents are extremely exposed. Many of our enterprises, farms, towns, villages and homes are at risk in a world that is changing rapidly. One only has to listen to young people coming home and saying that our generation is failing to understand that this is real. It is real in Kerry, just as it is real in any other area. If farmers want a future and want strong family farming to survive, they also have to start thinking about the changes that need to be made to copper-fasten the future of family farm income.

The sort of changes they are being asked to make are absolutely sensible. Many of them will pay for themselves over their lifetime. A new Common Agricultural Policy is coming and 40% of the income support for farmers under it will be dependent on farmers demonstrating that they are making changes that will improve the environment and reduce carbon impact. There will be recognition of farmers who are making the pioneering change but by making that pioneering change, they will also be better placing their farms to thrive in the future. I have been on trade missions and the people who buy our products are asking about their environmental certification. We are being asked to show evidence that the methods we use are sustainable. That is what is being asked. If we want premium margins for our agricultural produce because of its quality and Origin Green certification, we have to make these changes. These measures are in the interests of our communities, whether rural or urban. In many ways they are more in the interests of rural communities, because of the exported nature of much of the produce of rural Ireland. The figure is 90%. They are dependent on these international markets.

Reference was made to the question of China and India. China and India are part of the United Nations agreement. They are making the changes but they are starting from a position of a far lower impact on global carbon emissions and greenhouse gases than we are. They are far below us. For us to say we are not willing to make the change because people in poor countries that are at a far earlier stage of development and that have not been part of the fossil boom should make more changes than us does not stand up to scrutiny. If we went to Europe or the UN and tried to advocate that those of us in Ireland, which is one of the wealthy countries, are going to sit on our hands waiting for China and India to make the changes, others would rightly say that it was a contemptible position to take up.

We have to be part of a change that has to happen globally. There is no easy way around this. If we want to pass on our environment in a better state to our children and the coming generations, then we have to start making these changes now. The window of opportunity to do that is narrow. A tipping point is coming when the environmental damage done by carbon emissions is going to accelerate, not decelerate, and these changes are upon us.

It is entirely wrong for Deputy Danny Healy-Rae's friend to suggest this part of an election result. This committee and the Citizens' Assembly have been working for months in detailed hearings. This was nothing to do with an election result. Having said that, the election result perhaps does reflect the importance this issue has for our world and our country. It is timely that we, as a political grouping of all parties, are showing that we are facing up to this. We unanimously adopted the plan produced by the committee, including the Deputy. There was not a single dissenting voice in declaring a climate emergency or in adopting the plan that is highly influential in what we are doing.

I believe these are the right things to do. We will try to ease the passage for people, whether farmers or householders. There will be supports from the State but we cannot pay for everything. We are going to have to try to design policies that help people to make these changes. At some point we will have to say it is time to stop doing X, for example, stop putting oil boilers into new houses. That is the sort of change I have in mind. It is sensible. Why commit or lock down houses into a fossil system that will become more and more expensive for households to run? We are asking people to do sensible things that are part of a pathway to help our communities to be resilient in future in a rapidly changing environment.

Chairman: I have to bring in Deputy Martin Kenny.

Deputy Danny Healy-Rae: I need clarity on one thing. Is the Minister saying that people who burn turf or timber will not be penalised in future? Is the Minister saying that?

Deputy Richard Bruton: I did not say that. I said there was no obligation to stop burning turf. Of course, carbon pricing-----

Deputy Danny Healy-Rae: Is the Government going to penalise them?

Chairman: Let the Minister finish, Deputy Healy-Rae.

Deputy Richard Bruton: It is not a question of penalising them. People who are burning coal, turf or oil are creating environmental damage for which everyone in the globe must pay. By saying a price will be put on the damage that is done, we are following a long-established principle. People would understand this if the carbon being emitted was visible as a huge plume of smoke and we could see it. Let us suppose I said to the Deputy that he was going to have to stop producing it or that if he was going to continue producing it, then he would have to pay

for it. Since carbon is not visible in that way, we do not see the damage. It is more difficult for people to say that they are doing damage because they do not see it and it is not visible, but it is happening.

Deputy Danny Healy-Rae: The Government is going to penalise turf and timber burners.

Chairman: I have to bring in Deputy Martin Kenny.

Deputy Danny Healy-Rae: The Minister said this country was wealthy. Dublin is wealthy but rural Ireland is not wealthy.

Chairman: I have to bring in Deputy Martin Kenny. Thank you for your patience, Deputy. We have only a few minutes left.

Deputy Martin Kenny: I thank the Minister for his comments. I am learning something here. I want to focus on agriculture mainly and on the custodians of the land and the opportunity that may be there for them in future.

Forestry has been mentioned as one of the major methods of sequestering carbon. There is a vast amount of forestry in Leitrim. We have more than our fair share at this stage. Almost 30% of the land is covered at this stage. The forestry is mainly Sitka spruce and there is monoculture and so on. I do not intend to get into that discussion with the Minister. I want to talk about some of the issues that could make a major difference but are not currently. For example, every farmer in rural Ireland gets Pillar 1 payments through the Common Agricultural Policy. They are required to submit a map that shows the land parcel. Each land parcel is divided by hedgerow. Farmers submit the land parcel map. They have so many hectares for payments. Then, a photograph is taken from outer space. If the hedgerow happens to be growing out wider and the farmer loses half a metre along the length of the hedgerow, he is penalised and could lose up to 20% of his payment. That is probably 20% of the farmer's income. Indeed, in some cases the payment from Europe is more than 100% of the farmer's farm income. A simple change would be to say that a clump of whins on the side of the field can be included as part of the land parcel rather than immediately punishing farmers for it. Everywhere I go around the country I see hedgerows cut to the stump. Farmers do not want to do that but they are being penalised by the Department of Agriculture, Food and the Marine for not allowing them to grow.

Another issue I want to raise relates to new sectors. It has been mentioned that we need to develop new sectors in agriculture. The plastics sector is one possibility. Plant cellulose could be used to make plastics that are biodegradable. This will not happen by farmers doing it on their own. To develop a sector large enough to be sustainable in future, farmers need to work in partnership with big business or Government. Will the Minister leave it to the market to find that solution? Is the Government prepared to play a role to ensure that these sectors can develop? Hemp is one obvious material. The hemp sector could provide income for farmers and provide a solution for our biodegradable plastics problem. It could also provide a solution for carbon sequestration.

Another issue is the question of solar panels on the roofs of farm sheds. While I acknowledge it is in the proposals, is the Minister talking about paying for that electricity? At what level will it be paid for? I will leave it at that because I understand we only have a short time.

Chairman: Deputy Murphy do you wish to come in briefly? We only have a minute or two left.

Deputy Eugene Murphy: I have a brief question. I appreciate you letting me in, Chairman. I realise I am not on the committee. My colleagues had to go away.

Does the Minister believe it is realistic to say that we can be carbon neutral by 2050? I accept that we, as a nation, have to do something. Does the Minister accept that there is a need for major investment in the rural transport system? For example, the Local Link system could be expanded rapidly. Unfortunately, many people in rural areas have to rely on cars. I am glad that the Minister clarified that people will not be forced out of their cars and will not be forced to do certain things.

It has been reported that the National Transport Authority purchased 200 diesel buses last year. Is that going ahead? Will they be used despite the fact that we are trying to change the attitude to climate? We will have these dirty diesel buses around. Can the Minister clarify that?

Can the Minister comment on job opportunities in the midlands and the demise of the ESB and Bord na Móna? Different methods of farming will change things. There will be a serious challenge for jobs and job creation. Will we focus on that at some stage? I had another question but I will leave it at that.

Chairman: You have less than a minute, Minister.

Deputy Richard Bruton: I will be quick. I can see the point Deputy Martin Kenny is making about perverse hedge cutting. I will have to pass that on to people who are better equipped to address it.

There will certainly be new sectors. Enterprise Ireland is tried and tested in helping start-up companies. It supports high-potential start-up companies and commercialisation of technology emerging from our colleges. We have one of the best support structures for emerging technology of any country bar none. Added to it, we have the disruptive technologies innovation fund and the climate action fund. There are ample opportunities to commercialise emerging technologies, but I do not think the State will take it on. It will be through-----

Deputy Martin Kenny: It is with scale

Deputy Richard Bruton: It has to grow to scale. Enterprise Ireland companies have grown to scale. They start as high potential start-ups. Enterprise Ireland puts in its own capital and attracts venture capital. There is a very good model for developing technologies, for which I have been responsible, and I do not see anything better in any of the countries to which I go. Where a state decides to do it, it creates rigidity that is hard to replicate. Bord na Móna is an exception because of its long history, but it is looking for technologies to adopt. It is a State company that is diversifying and looking for new technologies. We should not say the State is going to go into a new wheeze we have identified. Let it emerge in the usual way. The price of electricity offered to microgenerators or community renewable electricity support schemes in an auction will have to be decided over time. It is not set at this time but will have to evolve.

It will be a challenge to be carbon neutral by 2050, but if we start to make the changes required and evolve the technologies, it is possible. The Department of Public Expenditure and Reform which is not the most radical in this area states the price of a tonne of carbon in 2050 will be \$265. If we factor in this figure to some of what we are doing today, we can see what a radical change it will represent. Things will change rapidly and we have to be ahead of it.

I accept that rural transport is an issue. It is recognised in the report, but, as Senator Mul-

herin said, we will not have trains running up every boreen. We have to come up with innovative solutions, whether they be shared services, pooling or other innovative ways, to do it. We need to explore them collectively.

The 200 diesel buses were purchased, but I assure the committee that they are low emissions diesel buses and replacing vehicles that are far worse. They were bought as part of a previous procurement framework. A new procurement framework will be put in place on 1 July and there will be no more diesel buses purchased. That will be the policy from here on.

Job opportunities in the regions will continue to present a huge challenge. That is why I am a big advocate of the national broadband plan. I do not want to ask members whether they are, but we need to do things like this. We need to have regional enterprise strategies and hubs that will look at emerging technologies, as Deputy Martin Kenny said, that we will need to try to develop using our own resources. I accept that we can do better in this area, but we have some of the infrastructure required on which to build.

Chairman: I thank the Minister and his officials for coming before the committee. I also thank committee members for their contributions.

The joint committee adjourned at 5.05 p.m. until 2 p.m. on Wednesday, 26 June 2019.