

DÁIL ÉIREANN

AN COMHCHOISTE UM GHNÍOMHÚ AR SON NA HAERÁIDE

JOINT COMMITTEE ON CLIMATE ACTION

Dé Céadaoin, 28 Deireadh Fómhair 2020

Wednesday, 28 October 2020

Tháinig an Comhchoiste le chéile ag 11.30 a.m.

The Joint Committee met at 11.30 a.m.

Comhaltaí a bhí i láthair/Members present:

Teachtaí Dála/Deputies	Seanadóirí/Senators
Richard Bruton,	Lynn Boylan,
Réada Cronin,	Alice-Mary Higgins,
Cormac Devlin,	John McGahon,
Alan Farrell,	Pauline O'Reilly.
Darren O'Rourke,	
Christopher O'Sullivan,	
Jennifer Whitmore.	

I láthair/In attendance: Deputy Aindrias Moynihan.

Teachta/Deputy Brian Leddin sa Chathaoir/in the Chair.

Business of Joint Committee

Chairman: I apologise for the delay in commencing while we were sorting out some technical difficulties.

I remind members this meeting cannot go on longer than the two hours scheduled. Is it agreed that contributions by members will be limited to five minutes each, to include questions and answers? I will try to facilitate a second round of questions if time permits. Is that agreed? Agreed.

General Scheme of the Climate Action and Low Carbon Development (Amendment) Bill 2020: Discussion (Resumed)

Chairman: I welcome to the meeting Professor John FitzGerald, Chair of the Climate Change Advisory Council. I thank him for agreeing to come before the committee. The format of the meeting is that the witnesses appearing remotely from outside the Leinster House complex will be invited to make a brief opening statement and this will be followed by a question-and-answer session. Witnesses are directed that only evidence connected with the subject matter of these proceedings is to be given and they are asked to respect the long-standing parliamentary practice to the effect that, where possible, they should not comment on, criticise or make charges against a person or body outside the Houses or an official either by name or in such a way as to make him, her or it identifiable. I also advise Professor FitzGerald who is giving evidence from a location outside the parliamentary precincts to note that the constitutional protections afforded to witnesses attending to give evidence before committees may not extend to him. No clear guidance can be given on whether, or the extent to which, evidence given is covered by absolute privilege of a statutory nature. If the witnesses are directed by the committee to cease giving evidence on a particular matter, they must respect that direction. I also wish to advise them that any submission or opening statements made to the committee will be published on its website after the meeting.

Members are reminded of the long-standing parliamentary practice to the effect that they should not comment on, criticise or make charges against a person outside the Houses or an official either by name or in such a way as to make him or her identifiable. I remind members and witnesses to turn off their mobile telephones or switch them to flight mode. They interfere with the sound system and make it difficult for the parliamentary reporters to report the meeting. They have an adverse effect on television coverage and web streaming. I invite Professor FitzGerald to make his opening statement.

Professor John FitzGerald: I thank the committee members for the invitation to talk to them. I am speaking in a personal capacity as the Climate Change Advisory Council has not yet had time to formally consider the draft legislation. When we do so next month, we will write to the committee.

I welcome the ambition and serious commitment to tackle climate change underpinning the Bill. I also welcome the members' deliberations as I feel there are aspects of the Bill that could do with greater clarity.

My comments today are confined to the issues of direct relevance to the work of the council rather than over the range of the Bill.

In singling out particular elements for comment, I am concerned that this important legislation should offer mechanisms that would be practicable to operate and to ensure that, in the detail of the Bill, we do not tie ourselves up in knots or bring about unintended consequences.

I have five key points. On the national targets for climate change, EU legislation is the key framework within which we define our national targets and how we successfully pursue ambitious climate action. While the EU defines our minimum national target, Ireland may choose to set a more ambitious one. I welcome the Government's increased ambition reflected in the Bill.

The EU is planning to raise our ambition as EU citizens for 2030 and to define the 2050 objective for the EU as net zero emissions. The EU legislation could be very helpful to us.

In the separation of policy-making and policy advisory roles, the major strategic decision on the scale of our national climate goals for 2030 and 2050 should be determined by the Oireachtas in legislation. We need a clear and unambiguous definition of the targets for 2030 and 2050. The role of the council is to develop policy advice and carbon budgets within those clear parameters.

The council has recommended a split national target for 2050, net zero emissions of long-lived gases and a separate target for biogenic methane. The targets set by the Oireachtas should be consistent with evolving EU legislation and informed by the work of the Intergovernmental Panel on Climate Change, IPCC. The council will then work within that framework.

The carbon budgets which will be adopted by Ireland will have very far-reaching consequences. They should be based on detailed research and analysis that stands up to independent scrutiny. That will require a much better resourced secretariat, and the time to do their work properly.

The expected timeline for development of carbon budgets is not practical, given experience in other jurisdictions which demonstrates the need to mobilise significant resources for the task.

Drawing up carbon budgets requires the use of detailed models to explore the implications of different pathways and policy interventions. A memorandum of understanding guaranteeing the council's access to the necessary skills, expertise and models in Departments, Government agencies and academia should be put in place before Christmas.

In developing the council's advice on carbon budgets, it would be desirable that the Department and other bodies that will have to implement the budgets should participate in the research undertaken by the council to ensure they fully understand the scientific basis for the council's recommendations.

The Bill should seek to identify the general set of principles which shall be taken into account in carbon budgets rather than listing a long list of possible issues, which might or might not be relevant. The list of 25 criteria which the council may or shall have regard to in making its deliberations is lengthy and would make council deliberations very difficult. It could also leave the council's advice exposed to legal challenge.

The council should be required to frame its recommendations taking full account of the legislated national targets for reducing greenhouse gas emissions, as I have indicated. However, it is essential to retain criterion (e) that would require the council to consider the cost effectiveness of the policies. Its exclusion will make it extremely difficult for the council to make recommendations that were either sensible or workable.

On climate justice, under the Bill one of the criteria the council should take into account is climate justice. The council has advised that climate justice and related issues are very important and these should be addressed in the implementation of mitigation and adaptation actions. However, while I believe that the council may make recommendations on this issue, the details of these distributional issues are ultimately for the Oireachtas to consider and resolve. I would be concerned, if the legislation is not carefully drafted, that recommendations by the council could end up in the courts rather than being determined by the Oireachtas.

Regarding adaptation, climate resilience is an essential component of proposed national objectives for 2050. There is a danger that adaptation risks do not receive adequate attention if they are only considered once every five years as part of the adaptation framework rather than being part of the normal process of drawing up plans and climate governance.

On the composition of the council, I welcome the intent of the Bill to ensure a more diverse range of experience and expertise on the council. In addition to any formal qualifications, members need to be people who have qualities of judgment and independence, can make forthright and well-grounded contributions, are open-minded and listen to others. It would also be valuable to have international expertise at the table.

While I acknowledge the Bill's intentions in setting out a list of expertise required of council members, the outcome could be exclusionary in practice. For example, Greta Thunberg probably would not qualify on these criteria for membership. It also makes no reference to expertise in adaptation resilience. A more general formulation in the Bill itself, with more detail possibly fleshed out in the explanatory memorandum, would give some desirable flexibility.

The council needs to be strategic in achieving its statutory functions of advising Government on climate policy and in preparing carbon budgets. There are a number of additional tasks and processes implied in the Bill that, unless carefully considered and sequenced, could overload the council and dilute the impact of its work. I thank members for this opportunity to talk to them.

Chairman: I thank Professor FitzGerald. I will take questions from members in the order in which they raised their hands. I call Senator O'Reilly.

Senator Pauline O'Reilly: I thank Professor FitzGerald for joining us today and for outlining his position. I have specific questions on some of the sections and I will be specific regarding some of the technicalities. Does Professor FitzGerald believe that if section 3(1) was to be amended to state "achieve a transition by at least the end of 2050" it would take into account the changing nature of European targets? On the make-up of the council, can he suggest any amended wording that will facilitate a broader range of expertise? Does Professor FitzGerald have any views on whether we should have a gender quota in that section in respect of the council? Does he have a view on the area of the *ex officio* members and can he suggest an amendment to the wording in that regard? Also, does he believe that interim targets other than for 2050 are required?

Professor John FitzGerald: I have found it impossible to get from the Department a spelled-out version of the Bill, so I am not sure what section 3(1) is. Perhaps Senator O'Reilly could clarify that.

On the make-up of the council, I think that-----

Senator Pauline O'Reilly: I will clarify for Professor FitzGerald what section 3(1) is. It

states that the State shall pursue the transition to a climate-resilient and climate-neutral economy by the end of the year 2050. I am asking whether we should change “pursue” to “achieve” and “by the end of the year 2050” to “by at least the end of the year 2050”.

Professor John FitzGerald: EU legislation will define the target for the EU as net zero by 2050, so being consistent with that makes sense. There should be no doubt on that. Certainly, that is how the council would interpret it. Clarity on that would therefore be helpful, but what we said about the split target should also be remembered.

As for the make-up of the council, a general principle-----

Chairman: I apologise for interrupting Professor FitzGerald, but the audio is breaking down. We will see if we can fix it.

Could Professor FitzGerald speak again and we will see how it sounds at our end?

Professor John FitzGerald: How is this? I have turned the camera off but I do not know that that makes any difference.

Chairman: I think it may, so we will continue like this. We cannot see Professor FitzGerald but we can hear him well now. He might go back over his most recent remarks in answer-----

Professor John FitzGerald: Section 3(1) involves a general set of principles rather than details. I am not a lawyer so I will leave that to lawyers to work out.

As for the composition of the council, I think we take gender balance for granted. Whether a gender quota needs to be put in place is for the committee to decide, but the council is unbalanced in that regard at present. I do not need to say it; it is obvious. The *ex officio* members have been very helpful. We have been able to command their resources, like having the SEAI at the table. When we say we want something, they deliver, but that is not necessarily a reason. I do not have strong views on this. It is essential for the EPA to be at the table because it houses our secretariat. I felt Met Éireann would be valuable in bringing to the table a collective scientific experience on the science of climate change but I will leave that to the committee.

I have forgotten the Senator’s final question.

Senator Pauline O’Reilly: It was on whether we should have interim targets in the Bill.

Professor John FitzGerald: It is essential to have interim targets. We cannot go along for 30 years and then find we have done a botched job and have not got there. That is what carbon budgets are for, whether or not they take the form of legislation enacted by the Oireachtas. That will set every five years a target so we will know if we are meeting the target and if we are failing, so interim targets are important. Given the EU’s position and the focus in this regard, we need to define a 2030 target as well. That will then be enshrined in the carbon budgets. The carbon budgets will be consistent with that. Carbon budgets basically provide the interim targets. In forming those targets, however, we need the Oireachtas to say what the interim target is for 2030. Then, within that, we can define what the targets should be for 2025, but the 2030 and 2050 targets have to come from the Oireachtas and must be clear.

Chairman: I will let Senator O’Reilly in again because of the time we lost due to the audio issues.

Senator Pauline O’Reilly: What I am hearing is that whether or not this is set in the legis-

lation, it has to be set outside of the carbon budgets in the sense that there is another target other than 2050. Professor FitzGerald might correct me if I am wrong on that.

The other question I wanted to ask Professor FitzGerald is whether he feels we need language in the Bill to ensure that the carbon budgets are therefore - and it sounds like this is what he is saying - consistent with the target for 2050, and if there is any other interim target. Is that what he is saying?

Professor John FitzGerald: Yes. What I am saying is that the Oireachtas enacts the 2050 target and a more ambitious target for 2030 and we then take that into account. I think the phrase in the Bill refers to Government economic policy or environmental policy, but the way we would interpret that is that if the Oireachtas says this is the target for 2030 and this is the target for 2050, we will then set out carbon budgets consistent with that. It is for the Oireachtas, however, to be clear on the 2030 and 2050 targets.

Senator Lynn Boylan: To follow up a little on the make-up of the advisory council and the issue of the *ex officio* members, would Professor FitzGerald agree that perhaps they should be there in an advisory capacity because they have the expertise? Should they have a vote when it comes to deciding on the advice coming from the committee? In addition, would Professor FitzGerald be happy to offer an opinion on the following? He referred to the SEAI and how invaluable it was in the past and the fact the SEAI and the ESRI are no longer members of the council but that Met Éireann and Teagasc are, Teagasc being there to represent agricultural exporters. Does Professor FitzGerald think there should be a difference between the *ex officio* members and the other members? Furthermore, as for how the advisory council comes to decisions to get right that balance between the science and all the other interests that are listed in the make-up of the council, should more weight be given to the scientific side of it?

Professor John FitzGerald: The way it works with the *ex officio* members is that they do not pursue a line. They are members of the council. They do not say, "The Teagasc line on this is X." They contribute to overall decision-making. I certainly do not think the way it has worked in the past five years has in any way infringed our independence. The expertise they have brought has been valuable. I know the director of the ESRI never wanted to be on the council. I was in the ESRI at the time, so the committee can ask the ESRI but I suspect it does not want to be there *ex officio*. All I can say is that until now our independence has not in any way been affected by the *ex officio* nature of their being there.

As for the scientific advice, our job as a council is to advise on policy. We have relied on the EPA and other public bodies. We take the climate science as given. The Oireachtas will define what the targets are for 2050 and 2030. Where the science becomes important is in how, in particular in agriculture, our understanding of the science has been important in influencing our recommendation on a dual target for 2050. We have had access to the scientific advice, but having a range of expertise on the council makes sense, as does gender balance on the council, which one would take for granted.

Deputy Réada Cronin: I thank Professor FitzGerald. I wish to ask about the climate justice aspect of his presentation. I have two questions. I am very glad he raised the fact that the climate council will take into account climate justice. He reminds us how the council has been at pains to say how vital climate justice is in reassuring us on a just transition. In raising this, Professor FitzGerald rightly points out the distributional issues. That is despite the council taking into account that it is the Oireachtas that will consider and resolve these. That could be open to interpretation. While all of us on the committee want to rise above politics, and there is

a need for the Bill to rise above politics, there is a gap between the council's aspiration taking climate justice into account and the Oireachtas considering and resolving that. We do not want climate justice becoming a hostage to fortune. How do we close the gap and seal it?

On a just transition, does the Bill sufficiently demonstrate that we are mindful of our international responsibilities as we achieve our own targets. It is almost like a Weight Watchers approach where one might make cuts somewhere to do something somewhere else and that might be detrimental to poorer countries, such as cobalt mining?

Professor John FitzGerald: I attended a seminar this morning organised by the National Economic and Social Council, NESC, with international speakers on climate justice. Our counterparts in Britain were talking about exactly this issue. It is not clear cut. Ultimately, the distributional issues are a matter for the Government or the Oireachtas. For example, we have said on carbon taxation that if we are to make any progress on climate change we must raise the carbon tax but we have also said that there is evidence from 1992 from research by my then-colleague Sue Scott in the ESRI that people on low incomes, on the bottom 30% of distribution, would spend a higher proportion of their budget-----

Chairman: I will stop Professor FitzGerald as we are having problems with the sound again. We will wait for a moment and I then will ask Professor FitzGerald to go over those last remarks again.

Professor John FitzGerald: I was giving the example of carbon tax which we said was vital if we want to tackle climate change. However, it has negative effects on those on lower incomes. We said those have to be addressed and there are different ways of doing that. It could be by giving a carbon dividend of the same amount to everyone or one could use the welfare system. We decided not to recommend which because we felt that was a matter for the Oireachtas. However, we recommended that the Oireachtas and the Government do something about it. In the last two budgets, the Governments chose a way of dealing with it. It is appropriate for the Government and the Oireachtas to make the final decision on that. It is our job to point out where the problem lies and the need to address it.

International responsibilities are an important issue. I am not sure the Bill is the place to do it. Our Danish counterparts have worked out what the appropriate carbon budget for Denmark will be out to 2050, thinking about climate justice and what Denmark owes the world, given past emissions and so on. We should be conscious of our responsibilities to the rest of the world. To some extent, we subcontract that to the EU. As EU citizens, the EU is playing its role. It is something where further research and reflection is required but I do not think that enshrining that in legislation where we do not know what the right approach or answer is makes sense.

Deputy Cormac Devlin: Professor FitzGerald's opening statement referred to the composition of the council. He said that in addition to any formal qualifications, members need to be people who have qualities of judgement and independence. Other witnesses have spoken of their experience of other advisory councils in other jurisdictions and many have spoken of the need to have a young voice on the council. Depending on the age group one goes for, they might not possess those formal qualifications. Someone could be *ex officio*, it depends on how one looks for these individuals. How does Professor FitzGerald propose that we deal with ensuring a young voice or young voices are on the advisory council or in its work?

Professor John FitzGerald: I am conscious that I am an elderly gentleman who was 71

yesterday and that one needs balance. It is an expert council established to look at the evidence and provide expert advice so the first qualification for someone on the council needs to be their expertise. There are people who have demonstrated their expertise who are much younger than I am and much younger than the average age of those on the council but it is not meant to be a representative body. We are meant to assess the evidence and provide the advice. That is the first consideration. As currently constituted, it is not our job to go out and consult on our advice, but it is for the Government to consult on the advice we provide. Up to Covid, I kept a pair of boots in the car because I spent a lot of time wandering around farms and bogs listening to people which probably is not part of my function but it reflects my elderly age, that I am retired and have the time to do it. Particularly in agriculture, I have found that one learns a lot by talking to people. It has guided our policy advice. The members of the council are part time and they are there to spend a day or two a month on this. We need to concentrate on understanding the science and the evidence on how best to deal with this and then draft the advice to Government. I stress the need for expertise and people who can work together in drafting policy. I anticipate the next council will have a younger average age than this one.

Deputy Cormac Devlin: Professor FitzGerald's opening statement made the point that the legislation should not be overly-prescriptive on the composition of the council or on additional functions for the council that could serve to distract from or dilute its core mandate. Is Professor FitzGerald aware of any sections in the Bill, as drafted, that would do that? Does he suggest that we remove anything or is it a warning against being overly prescriptive about the council?

Professor John FitzGerald: There are specific things in the Bill. We will give written evidence on that after the council has considered it. For example, where the Minister has to come back and consult with the council, if there is a large amount of toing and froing between us and we must comment on everything. This has been a problem for the council which has a small secretariat, but also for the council itself where there are people serving in a part-time capacity, meeting once every one or two months and it must consider every policy document, with the Government producing an awful lot of documents. One cannot give enough time to it. It is about being focused on where the council can most make an impact. Where it sees something in policy that it feels is appropriate or it wants to offer advice, the council has the freedom to intervene. However, requiring us to intervene at every stage in, for example, the legislative process would not make sense. There are one or two cases in the Bill that we will revert on where there is a danger of overload for the council. It is not the intention of the Oireachtas to do so. Rather, I believe it is being done by accident. We must take the law seriously and follow it. If it contains too many prescriptive measures about the stages we are on to be consulted on, it could pose problems.

Deputy Jennifer Whitmore: I wish Professor FitzGerald a happy birthday. I noted with interest his comment on the carbon budget and the amount of resources that will need to be invested to get it right. He spoke about possibly doing some preparatory work on that now. Will he expand on that? Could any other preparatory work be done, perhaps by Departments, to ensure that we can get off to a quick start once we get through the legislative process and the Bill is ready to be enacted?

Professor John FitzGerald: We have examined what has been done in Britain, New Zealand and Denmark. To us, it looks like it would probably take a year once the team was in place. I specifically suggested a memorandum of understanding to get us all looking at the models before Christmas so that we could start laying out pathways and questions.

Something else that could be done now would be to recruit the team of people who will do

the work, those with the relevant expertise in modelling and so on. Recruiting people, particularly in the context of Covid, takes a significant time and it could be three months before a team is in place. Taking action now, that is, before the legislation is enacted, to put in place the team that will do the job would speed up the process.

It is difficult to assess exactly what resources will be required until we see the final roles of the council and the Department under the carbon budget. If we are to define the carbon budgets, we must understand what the implications, costs and so on will be at a sectoral level. It will take time. I believe New Zealand is deploying a team of 28 people, which seems thoroughly excessive for a country the same size as Ireland. According to someone from the council who spoke at the seminar I attended this morning, Denmark's team has 22 people. We have four. There needs to be a substantial expansion of resources in advance. Even if all of the resources were available and we were starting now, it would still take the better part of a year to produce carbon budgets.

Given the legislation, I envisage the carbon budget being from 2021 to 2025. A year may have played out before the budget is in place. In drawing it up, one would take that into account. We should be taking action now before the carbon budget is enacted. Some actions are starting to be implemented under the budget. None of this prevents urgent policy action from being taken to tackle climate change now. We do not have to wait for, and should not wait for, the carbon budget. Doing this the first time will be complicated and a learning process. Given that carbon budgets will be enshrined in law, we must get this right. With the national budget, there is legislation on the night of the budget and there is a great deal of preparation because one must be sure one is right. Once the carbon budget is laid out, the Government will have to consult the various sectors. It will be improved by talking to and learning from people about where they see particular obstacles or opportunities. Getting all of this right will be difficult the first time round, but it is an important process.

Deputy Christopher O'Sullivan: I wish to cover three areas and get some feedback from Professor FitzGerald. If he does not have the details with him now, a written response will be fine.

I read the Bill again last night and focused on the section on the role of local authorities. It reminded me of how Cork County Council published a climate action plan in 2019 when I was a member of it. That focused on adaptation measures, though, with very little in the way of mitigation. Should the Bill place greater obligations on local authorities in terms of how they achieve their adaptation and mitigation measures? Since local authorities are major landowners or have a remit over large areas of land, could they be obligated to implement more nature-based solutions? Given that they also run car parks, what about electric vehicle recharging stations? Could there be stronger obligations? The Bill requires authorities to produce climate action plans, including mitigation measures. While this might address the matter, it has not been the experience to date.

Will Professor FitzGerald flesh out another point? He felt that the 25 elements that the Government should have regard to were too many. Will he elaborate? Actually, I am not sure if he said there were too many. Is he suggesting that the number should be reduced or more focused? Perhaps I misinterpreted him.

Will Professor FitzGerald elaborate on the matter of split budgets? He mentioned that he had been consulting the agricultural sector during his time off. He stated that the EU recommendation was for a split budget in terms of carbon versus biogenic methane.

Professor John FitzGerald: Regarding local authorities, we established the adaptation committee. Not a single economist was appointed to it. They were all from scientific backgrounds because we needed their expertise on adaptation across a range of disciplines. Local authorities are crucial where adaptation is concerned. When we spoke to them first, we received a very good presentation from Clare County Council. A man there was doing remarkable work on predicting possible flooding in the Shannon region by using buoys at sea and collating information. He could tell whether Shannon Airport would be flooded. However, on the other side of the Shannon are Kerry and, at the top, Limerick. We deemed local authorities too small to do this work by themselves. I am sure the man in question talked to the neighbouring councils. Climate action regional offices, CAROs, were set up, in which local authorities were grouped together with environmental offices, which provided the expertise. This was a major innovation. Local authorities are the ones that have to clean up - I will not say “the shit” - the problems when we are flooded and things go wrong. They need advice and resources. This is an adaptation to which people have not paid enough attention. The people of central Cork probably have, but the problems of central Cork – for example, rising sea levels - will also affect Dublin and Limerick. Local authorities need help and resources to determine what they have to do.

We also need to plan our resources for adaptation. When I appeared before an Oireachtas committee last year, I believe it was Senator Chambers who pressed the Department strongly on the budget for adaptation to deal with future coastal and river flooding and the budget for dealing with the danger that we will cook our elderly in nursing homes because the temperature is too high and there is no ventilation. Local authorities have an important role to play, but they need assistance in doing so. However, 25 elements are too many. I speak from experience. I have been a regulator of the energy sector in Northern Ireland. Between 2003 and 2007 I was on the Northern Ireland Authority for Energy Regulation. I was on the Central Bank Commission until the end of last month. The problem as a regulator is that if one is given too many objectives, one must consider them and if one does not consider them all in detail and write up what one is doing, one is subject to judicial review. If there are 25 things - remember that one is talking about a council of part-time people and a secretariat that is under pressure - then one must show one has considered all 25. Now, one does so indirectly. If one must document that and then defend it in the courts, however, it could be extremely time consuming.

Our problem in the Northern Ireland authority was that our major task was to deliver a secure energy system to consumers at minimum cost in the long run and to deal with climate change. The problem was that dealing with climate change meant raising the prices for consumers. If, therefore, one gives lots of objectives and the council must then arbitrate between them, one is moving into an area which is more for the Oireachtas than the council. One should keep it relatively simple, therefore, in terms of what the council is asked to do because 25 is just too much.

The split methane target is important because that is what the science says. When I took up my position I thought my job was going to be to encourage the farming community to get out of livestock totally by 2050. The first thing we learned was the science is actually more complicated and that is not the right answer. If we do not have a split target for 2050 and we must decarbonise, assuming that methane is like carbon dioxide, we would have to put in place carbon budgets which plan to eliminate all cattle by 2050. Quite rightly, the farming community would say this is rubbish because the science does not say that is the answer.

For credibility, and where appropriate, we must reflect what the science says and the report of the Intergovernmental Panel on Climate Change, IPCC, last year was important in this

regard. It is interesting that the latest European Commission proposals, although not fleshed out on this issue, look to be moving in this direction. We feel, therefore, we must reduce our methane emissions. In its legislation, the New Zealand Government plans to reduce emissions by 20% to 40% by 2050. We do not know what the right target is. It is going to be substantially less than what we do today but it will not be zero. We need the Oireachtas to tell us what we are to plan for and we will then put in place carbon budgets to try to deliver that.

Chairman: I thank Professor FitzGerald. Was Senator Higgins indicating to come in at this point?

Senator Alice-Mary Higgins: I am putting my questions together, so I will be one moment.

Chairman: We have had one round of questions. Does Deputy Bruton wish to come in?

Deputy Richard Bruton: I thank Professor FitzGerald. It is good to hear his voice. In his last comment, Professor FitzGerald raised the point about the distinction between biogenic methane and other greenhouse gases. The way in which the legislation has defined the 2050 target is a “climate neutral economy”, meaning “a sustainable economy, where greenhouse gas emissions are balanced or exceeded by the removal of greenhouse gases.” Is that a proper approach to this? It would appear to say we can have biogenic methane not at zero. One would, however, have to have negative emissions from the other sectors. When he talked of a split target, did Professor FitzGerald have a target in mind which would have positive biogenic emissions which are not balanced? I am aware the latter would be less onerous than the former but, perhaps, he could comment on this legislative framework we are creating.

Professor FitzGerald advocates the 2030 target should be spelled out in legislation. Currently, as he will be aware, the programme for Government indicates we should achieve a 51% reduction in greenhouse gases by 2030. That is very much shared as a political objective. Unlike what Professor FitzGerald is talking about in terms of carbon budgeting, however, I do not believe any of us have been able to do the detailed assessments of its implications for Irish society and so forth, so we recognise the obligation.

Is it premature for us to enshrine in law something which is a determination to deliver, although we have not seen the sort of work that underpins it? Undoubtedly, the next two climate budgets will seek to achieve that. By enshrining it in law, however, do we create something that can open the State up to litigation? Is that a correct approach? I am aware this is a difficult issue. On one side, people will say if one makes it a legal obligation then that is important for the future of the world and it forces the Government. On the other side, we are politicians trying to bring people with us, as Professor FitzGerald rightly said, farmers, people in the motor industry and all these different groups. I am seeking Professor FitzGerald’s advice on striking that balance between them when we have pretty imperfect knowledge as legislators.

I fully sympathise with Professor FitzGerald when he says 25 things is too many but, I suppose, politicians are always trying to balance all these things. I am sure that is where the figure of 25 came from. Does Professor FitzGerald suggest we should just make simpler the language to take into account the many economic, social, cultural and other implications when setting climate budgets? Would that be a better way to deal with this?

My final question is on climate justice. Professor FitzGerald rightly said this is a matter primarily for the Oireachtas. Should we, however, create some sort of a framework in this Bill which would, at least, be the framework Ministers forming budgets from year to year or what-

ever should consult. Would that be of value?

Professor John FitzGerald: There are quite a number of questions there. I could work with the definition of 2050. I would interpret it in the way the Deputy suggests. I just want to be certain the legal eagles will interpret it that way. We must get to net zero on long-lived gases, in particular carbon dioxide, but I would interpret it to allow a split target. Of course, we have not mentioned land use. A huge way of dealing with the biogenic methane, however, is to offset it by changes of land use.

The point I make about imperfect knowledge is an interesting one, and we do not know what we are signing up to for 2030. The way I see it is that the Government sets its 2030 target and we go off, because this work has not been done and, as the Deputy said, we have imperfect knowledge, and beaver away and we produce the carbon budgets. The carbon budgets may not be sufficiently attractive or they may bring such major problems that the Oireachtas may decide to modify them. Its role is to determine the feasibility. There would, I suppose, be a problem where having enshrined the 2030 target in the legislation, if no carbon budget can get the Government to 2030 in a way that is acceptable to a majority of the Oireachtas. It is up to the Oireachtas then to change the target if it finds it is unacceptable. That is not a satisfactory answer, however, and I cannot give the committee a money-back guarantee on this because I do not know. We have not done the work so we do not know what major changes it will require in Irish society. We, the experts, do not have to consider the political acceptability of it. The Oireachtas must determine that.

The Deputy referred to the State being open to litigation. Litigation can say the Government has got to have plans in place to do the job, and the climate action plan it brought in last year delivers on that. If this ends up in the courts, however, then we have failed. I will leave that to the lawyers.

On the 25 criteria, the first three or four are appropriate, as is the cost-effectiveness one. De facto, in making our recommendations, we have taken account of a range of other matters. For example, the health co-benefits and biodiversity co-benefits of quite a number of the steps we have recommended, and that the Government is implementing through policy, will not only be good for climate change but also improve human health through reducing emissions in urban areas. They could also be good for biodiversity. While they have not been part of our obligation, we have considered them.

Once they have to be considered, that is, once legislation has to be defined, somebody could be subjected to judicial review. Every one of them, therefore, has to be documented and it has to be shown that what the legislation requires has been done. The inflexibility is posed by naming everything, rather than by setting out the key parameters for the council. The parameters are much broader for the Minister, the Government and the Oireachtas. They have to consider the acceptability and a range of other issues. They should try to keep council focused in such a way that it will not end up in judicial review complications, and make it easier for us to provide our advice. We are mindful, as I expect the next council will be, of the broader issues for society. That is why, in our recommendations for major changes in agricultural policy, we are mindful that the political system has to get buy-in and implement them. Perhaps we should not be considering the acceptability but we do so in our recommendations.

Senator Alice-Mary Higgins: I thank Deputy Bruton for asking the question - it saves me the trouble of asking it - about the split targets. The understanding is that a zero-emission target effectively accommodates the fact that biomethane may not be zero but may come to a net zero.

That was a useful clarification.

Professor FitzGerald mentioned the minimum target of 2030. I am a little concerned, however, that the council seems to be putting a great deal of its scientific input into that idea. As I see it, that is a political commitment that reflects the science. Through our hearings, the committee has an understanding that the new advisory council, which might be a little different from the previous one in this regard, will have a clear remit in respect of the science, and that the budgets will, as one of the primary goals, ensure that the temperature increase stays below 1.5°C and that we meet the emission reduction targets. One function, therefore, is the budget and how much we can afford while achieving those key goals.

The second aspect is the how. That is the policy-inputting that Professor FitzGerald described, which might relate to sectoral plans or, as he mentioned, plans at local authority level. Perhaps Professor FitzGerald will differentiate. Does he think there might be a benefit in having scientific expertise that inputs into the how, along with other, wider expertise? Perhaps some of those wider factors listed in the 25 criteria could also input into the policy, in regard to the how and the details of sectoral plans? I am concerned that Professor FitzGerald mentioned the criterion (e) in that regard. I do not believe that criterion (e), on cost effectiveness, could appropriately sit in that space of how much we-----

Professor John FitzGerald: I apologise but I have lost sound. The Senator might reiterate.

Senator Alice-Mary Higgins: I have a concern that criterion (e), on cost effectiveness, is included in those first four functions about deciding how much carbon budget we have to save the planet, reduce emissions and achieve the target of a temperature increase of less than 1.5°C. I wonder what Professor FitzGerald interprets cost effectiveness as because there are different meanings. Is it about what is most economically advantageous, or the life-cycle costing, or the lowest cost or the price quality? It is quite an ambiguous and wide term. Professor FitzGerald might comment on my suggestion that the cost-effectiveness criterion might be more effective deciding how we achieve our goals rather than how much we achieve, and what he interprets cost effectiveness as.

The professor mentioned Government policy. What areas did he mean? Is it only environmental Government policy that he envisages having regard to or are there other areas of Government policy? That question also relates to sectoral plans.

I might ask another question in my follow-up response.

Professor John FitzGerald: On the objective for Ireland set out in the legislation, we are conscious that in respect of the IPCC's recommendations, as mediated through the EU, the legislation, ultimately, determines the EU's position. While Ireland failed to meet its 2020 target, the EU as a whole will meet its 2020 target. It seems that we have not yet considered it, but if the draft EU legislation proposed last month is implemented, it will provide a strong certainty that the EU as a whole will meet its 2030 target and its 2050 target because the mechanisms the EU is designing to do so will deliver with a high probability of success. As for the science determining what the objectives should be for 2030, that is for the Oireachtas to determine if the Government wants to increase its ambition. Deputy Bruton pointed out that we do not know what it will cost society - "cost" in a broad sense - and society will have to consider that target. There is no correct answer in looking forward, or if there is, we do not know what it is.

On cost effectiveness, I have forgotten the precise formulation in the current Act under

which we are operating but it was clear. If we did not consider cost, we could outline any scheme, which might cost €300 per tonne. In seeking to change agriculture, we do not consider the cost to the agricultural community. I do not think it makes sense to come up with policies that do not take account of the constraints of the cost of their implementation. It is worth remembering that cost incorporates the just transition, that is, the cost to individuals in society as well as to society as a whole. Economists talk about welfare effects, which are not necessarily the direct effects. They include indirect effects on individuals.

I have mentioned the issue of Government policy. My reading of where the Bill states that we must take into account Government policy was that we were to take account of the targets for 2030 and 2050 as defined in the legislation. It may be that more than that is intended.

I hope my response was not too meandering.

Chairman: We had some audio difficulties, so I will allow Senator Higgins to respond.

Senator Alice-Mary Higgins: To clarify, I do think it is a matter of whether-----

Professor John FitzGerald: I apologise but the Senator's audio is breaking up.

Senator Alice-Mary Higgins: I wished to clarify something, in case I was unclear in my question, but it is fine because the professor's response addressed it in any case. My point was that one of the cost-effectiveness inputs to the policy is the how, that is, which approach we take, rather than the how much, which is the budget question.

Professor FitzGerald stated Ireland did not achieve its 2020 targets. Given that Ireland has not reduced its emissions in recent years, will he highlight one or two things that could have been done differently in regard to the council's role and the wider governance structures that might have allowed Ireland to achieve the kinds of emission reductions that other countries have done? Looking back to how the previous system operated, does Professor FitzGerald see anything that could have been done differently and could have contributed a greater emissions reduction?

Professor John FitzGerald: Looking back, it seems to me the answer was there in 1992. That was the year in which the ESRI published the first work of mine on how we were going to deal with climate action. It was when we started taking this issue seriously. My recommendation at the time was to introduce a carbon tax and support the then EU proposals on carbon taxation. However, Ireland was opposed to those proposals. If they had been implemented then, we would be in a different place in regard to climate, not just in Ireland but in the whole of Europe, and we might have really succeeded. There have been a lot of mistakes along the way.

Going back to when the Climate Change Advisory Council was established in 2016, it took some time before we formulated our ideas and it then took time to get a Government response. The Climate Action (Amendment) Bill 2019 is one of the fruits of a lot of work by the Government and it reflects an increased urgency around climate issues in Irish society. For the first five years of the 2010s, trying to get any attention on climate change was exceptionally difficult. I say this as somebody who has been working in this area for 30 years. However, I think there is now a more receptive audience among the public in Ireland for a commitment to take action. It is true that things could have been done very differently in the past but we are where we are.

Chairman: We have completed the first round of questions and answers. In responding to Deputy Christopher O'Sullivan's question on the role of local authorities, Professor FitzGerald

elaborated on the adaptation side of their role. Will he comment on the mitigation side? I am thinking in particular of housing provision and transport planning, which are two of the big areas of climate challenge.

Professor John FitzGerald: The national planning framework is focused on dense development. It is a matter for the local authorities to deliver development that will work for people by facilitating active modes of transport and making mass public transport more efficient and economically viable. That is one area. Another area that is really important concerns the housing stock. This is an area in which Northern Ireland probably does things better. The Northern Ireland Housing Executive manages the housing stock for the whole of the North, whereas, in this State, each local authority is responsible for its own area. The State is the largest landlord in this country and it is landlords, not tenants, who have responsibility for upgrading and retrofitting their dwellings. As such, local authorities have the responsibility to upgrade the 100,000 dwellings, or whatever number it is, in State ownership. That is going to cost billions. It is a huge task and it may be that we need a housing executive, similar to the body in the North, to undertake it. The Northern Ireland Housing Executive has done a lot of stuff from which we could learn. The Climate Change Advisory Council has already learned from some of that interesting work and we included that learning in the recommendations that were taken on board in the climate action plan.

Local authorities can provide leadership in this area. To give an example, Kilkenny County Council, before upgrading a local authority estate, worked with the county engineer to source a builder, vet everything and ensure the thing was done right. The private owners of the houses on the estate then asked about upgrading their own homes, having seen that the authority had worked out how to do it, got a good price from the builder and checked that everything was done properly. Our recommendation, which was included in the budget, was to use the State's resources to prioritise the upgrading and retrofitting of local authority dwellings. The local authorities are playing an important role in this area. I was at a conference where representatives from Dublin City Council talked about finding different ways of financing the upgrading, which was innovative and interesting. Local authorities need assistance and they need to learn from each other. The Northern Ireland Housing Executive, where things are done at scale, is a useful model. I was familiar with its work 15 years ago when I was a member of the Northern Ireland Authority for Energy Regulation. I would like to invite the Northern Ireland Housing Executive people down to talk to us in the Climate Change Advisory Council to see what we can learn from them. We tend to think about what the North can learn from the Republic. In the case of the housing executive, we might learn from the North.

Chairman: On the transport side, the local authorities have a huge role to play in planning and consulting with the national bodies. Transport accounts for 20% of our overall primary emissions and 56% or 58% of non-emissions trading system, ETS emissions. Therefore, we must tackle transport. I am wondering whether there is enough in the Bill in terms of leaning on local authorities and national bodies, including the National Transport Authority, to fundamentally change how transport works and tackle the problems effectively. Does Professor FitzGerald have anything to say in this regard, specifically in reference to the provisions in the Bill?

Professor John FitzGerald: The provision of public transport is, in effect, handled by the National Transport Authority. Local authorities do not control it. It is hugely important to make our cities - I say cities, not city - work in terms of public transport. The planned changes in Cork, for instance, including the BusConnects initiative, are really important. I am not sure climate action legislation is really the place for this. We must have good planning for the pro-

vision of public transport and we must then implement those plans. We have been weak on implementation in the past. As a footnote, when I was recovering from chickenpox aged ten, my father gave me a map of Dublin and suggested that I design an underground transportation system for the city, which I went off and did. Sixty years later, I am still waiting for it to be built. I hope we see some progress in that regard as we look ahead.

Chairman: We are working on that and we hope to make some progress imminently. It is important to bear in mind that transport is not just public transport but also private transport. The roll-out of new infrastructure will serve both. While we need to move to a public transport-leaning society, where people can rely on local public transport services, my concern is what is happening on the other side. There are extensive plans for the roll-out of what is, in effect, car-centric infrastructure, which will, through the phenomenon of induced demand, make it a lot harder to bring about the modal shift that is required to reduce emissions in transport. I have already used up all the time available to me but I would welcome a brief comment from Professor FitzGerald on this question.

Professor John FitzGerald: The Climate Change Advisory Council has raised the issue of congestion charges and charging for urban road space but we have not made a precise recommendation as yet. It is all about making our cities work. The current way of dealing with excess cars in the city is to make life hell for drivers. There may be a more efficient way of charging. I am also interested in integrating active modes of transport. If one goes to Gent-Sint-Pieters station in Belgium, for example, Lund and Malmö stations in southern Sweden or the central station in Copenhagen, one will see massive bike parks nearby. The first thing I did with my free travel pass was take a train from the M3 Parkway station near Dunboyne. There was nobody on the train but I saw a vast number of cars in the car park. I did not see many bicycles parked there. Looking at ways of integrating the different modes of transport, which will be better for everybody, could be helpful. It was one of the things we researched and there is a chapter on it in the report we published last month. One thing which I have not considered but which came up in the research we commissioned was the use of bikes to access public transport. We do not need to ban cars totally to make our cities work. This depends on personal choices. If people really need to bring their cars into the city, we must consider paid parking and finding a better way to ration road space. We need the space for public transport first. BusConnects is really important for Dublin.

Senator Lynn Boylan: I would like to bring the discussion back to the Climate Change Advisory Council. The lack of interim targets makes it hard to judge whether we are on the right trajectory and whether we can take action to get back on track. I would also like to ask Professor FitzGerald's opinion on the fact that the Bill will amend section 12 of the Climate Action and Low Carbon Development Act 2015 to provide that the annual report of the Climate Change Advisory Council is to be issued by 15 September of the previous year. I know he has not had a chance to read the Bill, so he may want to reply in writing. This can be compared with the British model, which names a date of 31 March. Without the interim targets, the report of the Climate Change Advisory Council is being delayed. There seems to be a real lag in progress on those targets. Should we provide more resources to the Climate Change Advisory Council so it can file its reports in a more expeditious manner?

Professor John FitzGerald: We normally published our annual report in July but because of Covid-19 we did not get it out until the end of September. Our term of office ends in the middle of January and there will be a new council, which could have all new members. It would not be feasible for that council to produce a report by March if it has entirely new mem-

bers. It would not say anything sensible. The legislation may be framed on the basis that the new council may be able to do the job by September. That issue could be addressed by naming a date in March of the year after the council is formed. I do not see that as a huge constraint. Releasing a report in September is not ideal timing. July was a much better date, allowing for a much better chance of the report being accounted for in the budget. I do not think the precise timing is hugely important, but March would not be feasible next year with a new council. If the Oireachtas wants the report to be issued in March in future years, that should be specified. It may not need to be specified in legislation. A statutory instrument drafted by a Minister could be more flexible.

Senator Lynn Boylan: I completely accept that a new Climate Change Advisory Council should not file a report three months after its establishment. However, the draft heads of the Bill require the advisory council to present its report on 15 September of the previous year. That would set that date as a continuing trend. We could allow scope for the council to deliver its first report later in the year, but I am concerned about establishing an ongoing trend of waiting a full nine months. That is written into the Bill. Does Professor FitzGerald think that provision should be removed and the matter dealt with through a statutory instrument, with allowances made for the first year?

Professor John FitzGerald: It is probably better to take that provision out and address this matter through a statutory instrument. It allows more flexibility. In the future there could be delays in appointing a council. The Bill must include the really important things that will make a real difference. We might then ask whether other issues need to be included in the Bill or should be included in secondary legislation. We should ask what could go wrong if the date of the report is included in the Bill. Governments will not amend the Bill to include a date of 31 March rather than 15 September. That would be a waste of the Oireachtas's time. The committee should think about what should be in primary legislation and what should be in secondary legislation.

Deputy Richard Bruton: I thank Professor FitzGerald. He commented that one of the frustrations for the Climate Change Advisory Council was in securing access to modelling data in order to get a full picture. He also noted that line Departments ought to participate more in the research that leads to the council's conclusions. I could not agree with him more on that. As a former Minister, I can say that one of the most frustrating things is the lack of understanding in some Departments of the scale of the challenges and the sort of changes needed in the sectors for which they are responsible. I will not single out any one sector. Does Professor FitzGerald see any way of embedding that thinking throughout the system? Making Ministers accountable for their individual budgets and putting the Minister for Climate Action and Communication Networks in the hot seat is one way of doing that. Does Professor FitzGerald have any suggestions as to how this type of thinking can be shared and embedded in institutions?

Professor John FitzGerald: Speaking to a previous committee two and a half years ago I expressed frustration about the fact that we could not get access to the modelling data. Our relations with the Department were not great. Things have changed in the past 18 months and there is a willingness to give us access. My frustration arose because I was doing the same kind of work at the Economic and Social Research Institute, ESRI. I understand it. Modelling is my first love. Institutions need to work together. When I was at the ESRI I participated in a very good group with departmental staff involved in this work between 2010 and 2012. This work should be restarted. That is the importance of the memorandum of understanding. This is what the equivalent body in the UK has done. It has had similar difficulties with bringing everybody

together.

We are a small country and the expertise at our disposal is limited. Making best use of it is important. We may need ten or more experts on the Climate Change Advisory Council. We draw up the carbon budget and it then goes to the Department. The Department then has to hire ten similar people to understand the budget. I recommend using a common team to do the research and then allowing the council to form its opinion. We understand the research. The Department knows where in the research the bodies are buried and can intervene if the Minister wants a different approach. It can do this from a position of understanding the research. If a body has not been part of the research it is difficult to get involved in it, even if it is well-documented.

I have seen a model of this approach between the ESRI, the Department of Finance and the Central Bank over 25 or 30 years. Modelling was carried out jointly by the Department of Finance and the ESRI. That is still the practice. The Department of Finance uses the ESRI's model in preparing the budget. This kind of model has worked in other areas. Models in the climate science area do talk to each other. There is a possible win-win outcome here. It is really important that the Department is involved. I carried out a series of studies on investment priorities for the Department of Finance over 25 years. After the first 20 years I recommended that the Department deploy somebody to work with us on the project full-time so that the Department would understand our recommendations. It might not accept them, but it would understand the science behind our conclusions.

Working together will make better use of expertise that is scarce in Ireland and will help in policy-making. The Department was concerned that it would infringe on our independence. I am quite capable of telling the Department or the Government that I disagree with them, as is the council. Doing the research jointly would not infringe on our independence. Forming our conclusions is where we must be independent, and we are.

Senator Pauline O'Reilly: I want to come back to one of the points the professor raised about the approximately 25 things to have regard to in section 3. It sounds to me as if the Professor is concerned that it may become a little bit of an exercise in box-ticking. I wonder would it be better, or complementary, to have expertise in some of those areas, for instance health, on the council. There are obviously different ways in which one could go in order to bring about net zero emissions. Health must be taken into account and different measures can be adopted based on the expertise on the council. Does the Professor think that we could amend it to have expertise on the council and bring that to bear on everything the council is doing, rather than ticking a box to demonstrate that regard was had to a particular health policy?

The Scottish Act specifically mentions just transition and there is no mention in this Bill, as it stands, of just transition. Does the Professor feel that it would be of benefit to bring that into the Bill?

Professor John FitzGerald: Just transition and climate justice are similar concepts. There is a range of different issues that come up. Mention of just transition should be considered though I am less concerned about the precise wording, although perhaps I should be more concerned because it is in legislation.

On the Senator's reference to the box-ticking exercise, my concern extends beyond just that. It is an advisory council so it is different from a regulator but having been on two regulatory bodies, I know that all of the evidence and criteria set down in legislation have to be consid-

ered. The council must also be able to show that those criteria have been considered or it will be judicially reviewed. When I was on the Northern Ireland Authority for Energy Regulation, one had to hear all the evidence before one made one's decision. When one is dealing with people who are part-time, giving a day or two to a council, setting in legislation that all of those issues must be considered becomes problematic. The council will just be ticking boxes on all of those issues. There are certain issues that are important, the first of which is getting to net zero emissions. The second is doing it in a way that is acceptable to society in terms of its cost. We then need to make sure that people are not left behind or particularly badly affected by it. Those are important criteria. Once one goes beyond that, it becomes a tick-box effort which has to be considered before we can make any recommendations. That is problematic and I see a difficulty there.

On the Senator's point about expertise, we have a health expert on the adaptation committee. We could not operate without a range of expertise, including engineering and so on, when it comes to adaptation. The adaptation committee has a range of expertise. The legislation specifies the number of people on the council. If one decides to have an expert in all of these areas, I am not sure that will work as a council. One wants a broad range of expertise and, as I set out, one needs a council that will actually work. I have been particularly fortunate with my colleagues and we have worked well together, although we have not always agreed. It is important to have diverse views or approaches on the council, rather than a single viewpoint. We should be looking for a breadth of representation across gender and expertise, people who will have different views but will come together to make a cohesive recommendation. That is important for a council.

Senator Alice-Mary Higgins: We mentioned the fact that science changes and it only seems to be changing in one direction at the moment. We heard in our examination yesterday that the Scottish Act has minimum interim targets but also provides for those targets to be raised within the carbon budgets where, for example, scientific expertise suggests that they might not be achieving 1.5°C limit and the evolution of science in that regard. I know the Professor spoke to some of the other inputs and potential policy outputs, but could he indicate what scientific factors should be considered, either in terms of membership of the committee or the other scientific input? The Professor mentioned the Intergovernmental Panel on Climate Change, IPCC, for example, and there are others that should be inputting into that evaluation of whether a budget is sufficient or needs to move above an interim target. That was addressed interestingly in the Scottish legislation.

Also in the Scottish legislation, Ministers who do not take on the advice of the Scottish equivalent of the advisory council are required to give reasons and a rationale to explain why they did not. Is that something useful that we should be replicating in this Bill so as to ensure that sweetness is not falling onto the desert air, or whatever it might be? If advice is coming through, should we require a rationale as to why it was not followed?

My final point will build on the points made by Deputy Bruton and others about Departments. One concern we have heard about the Bill is the lack of sanctions for Departments. We know that only 1% of a shortfall in achievement can be reflected in the next budget period. What are other appropriate sanctions for Departments or public bodies that fall short of their targets? The Professor mentioned international expertise. Could he comment more on what he sees there?

Professor John FitzGerald: On defining the target, I feel that is a matter for the Oireachtas to determine. I know the Scottish approach is different, but I look at Denmark, New Zealand

and France. The expertise to define the target is for the Oireachtas to determine. We have made a recommendation on the split target and discussed how it is defined in the Bill and that seems appropriate. The current council works within the targets that are already enshrined in legislation.

It makes sense to require the Minister or the Government to explain why they are not going ahead with recommendations. I do not think that is hugely onerous for a Government. It puts the arguments for the Oireachtas to consider in a framed way. The people of Ireland can also consider them. Policy making in Ireland is a complicated process, as it should be, involving not only the Government, Oireachtas and experts, but also a range of civil society bodies.

On sanctions, we have a 2030 target. If we do not meet it, what will the courts do? The failure to meet the 2030 target will be due to the current Oireachtas and Government, the next Oireachtas and Government and a third Oireachtas and Government thereafter. Do the courts lock up all the Ministers and Deputies? The sanction is Oireachtas Members saying that they have failed. I am not sure that looking for sanctions on Departments because they have failed can be implemented or makes sense. Ultimately, if we do not make the 2030 target, it will be because the people of Ireland have not supported an Oireachtas that was prepared to make the necessary decisions. I see this as a political process where the politicians deliver and, if they fail, it is for the electorate to say what it thinks about it.

Senator Alice-Mary Higgins: I was not speaking to the 2030 or 2050 targets, but in terms of failures in the five-year budgets within that, for example, the budget to 2025, to 2035, to 2040 and so forth. That was what I was talking about with regard to sanctions. As a Member of the Oireachtas who has had the unfortunate experience of calling out failure on multiple occasions and on multiple issues, it is not an adequate sanction from my perspective. We are looking within the five-year budgets. This is not the overall targets, but the budgets. Perhaps it is a difference from the previous advisory council. It is becoming clear there is an understanding now that there would be a strong scientific input, as the science is changing yearly in respect of what needs to be done within each year and each five-year period. Within the budgets, what do we do if a specific Department has fallen far short while another Department is achieving its targets? How do we reflect that or how might the advisory council want to reflect that going into the next five-year budget cycle? This is separate from the overall target.

Professor John FitzGerald: I did not answer the Senator's question about international expertise at the table. I have had a range of expertise. When I was on the Northern Ireland Authority for Energy Regulation I was one of two external people from outside Northern Ireland. There was a very good person from England on it. I believe we made a significant contribution. When the new Central Bank Commission was set up in October 2010 after the disaster, it included somebody who was not Irish and who worked in the commission and in the IMF whose advice was very valuable to us and to the then Governor and deputy governors. He was only on it for one or two years. On our council we have had Professor Ottmar Edenhofer, who is one of the leading environmental policy experts. In Germany, he spent a great deal of time advising Chancellor Merkel and the current German Government. Having his insights has influenced, for example, the carbon floor and what is done there. He influenced me and the council. In fact, a very good lecture which he gave at the International Energy Agency, IEA, last month is available on its website. It is very important in terms of understanding the EU legislation and the political economy. I found it valuable on three different boards or advisory bodies to have an outsider who brings a different point of view and different expertise. That is my experience.

In terms of Departments that do not perform, it is up to the Government to deal with that.

The co-ordination in the Department of the Taoiseach, and the committee might have the person who is responsible for that giving evidence, may make a difference. The Department of Finance has a great deal of clout, so when it says to another Department that it is cross and wants it to do something, that Department listens. When the Department responsible for climate says it to the Department of Agriculture, Food and the Marine or the Department of Housing, Local Government and Heritage, those Departments are much less likely to listen. That has been something of an issue until now. Now there is, first, the involvement at the top of the Government and, second, the Department of the Taoiseach's co-ordinating role, which brings failures to the attention of the Taoiseach. Those internal mechanisms and the climate action plan, the governance there and the reporting, were a major step forward. In the future it is going to be far more obvious where there are failings than was the case in the past.

Chairman: That was our second round of questions. We have a few more minutes so members can contribute again, if they wish. I call Senator Higgins.

Senator Alice-Mary Higgins: I was holding back on this because it is a slightly wider question, but if there is a third round-----

Chairman: Make it very brief, if possible.

Senator Alice-Mary Higgins: This is a question for Professor FitzGerald when wearing his economist hat. Will he comment on how economic thinking has been shifting with regard to the centrality of sustainable development and climate? This really relates to the front-loading question. How should or could action on climate change be reflected in our response to the Covid and Brexit crises? We have large financial and economic policy instruments coming into play in respect of Covid and probably, unfortunately, in January in respect of Brexit. How can we ensure the response there is also equipping us better for the transition we need in terms of climate change?

Professor John FitzGerald: In terms of economics, I have my grand-aunt's economics notes from when she studied economics in Cambridge in 1922. She had received lectures from Arthur Pigou, one of the great economic thinkers of the time. He pointed out that having a carbon tax was the way to go in dealing with environmental issues where there is wider damage that is unpriced. Economics for 100 years has said that this is the beginning. However, one needs far more than that. One needs major regulatory changes and so forth. The economics thinking has evolved. A guy called William Nordhaus won the Nobel Prize for economics last year or the year before and he was working on this in the 1970s. He spotted the damage which the scientists said was being done to the climate and started working on it. The economics of this has not changed dramatically over 50 years or a century. The broad answers are unchanged. The detail is different because people behave differently and if one does not take account of how people behave and what they hear, it will not work. There is much interesting work being done on the details, but, although people might disagree, the broad parameters of environmental economics have not changed greatly.

At the detailed level in terms of Covid and the current crisis, I have written on this in terms of macroeconomics. Households are saving like mad, not just in Ireland and across the EU but also in the United States until the stimulus was stopped there. That might change after the election next week. At the end of next year, we will, hopefully, have a vaccine and go back to normal. The issue is what people do with their savings. I want to visit my three children who are living abroad. That is not good for climate change, but I want to see my children and grandchildren. That is one thing, but there is a large amount of money there which could be used to

retrofit houses. Looking at an opportunity for ramping up in 2022 is one area. The other area is State investment in areas that would be important in terms of the green future. First, there would be enhanced EU funding for it, and we will have to expand the infrastructure. Yes, there are things we can do post Covid at the detailed level.

Did the Senator have a second question that I have forgotten?

Senator Alice-Mary Higgins: No, Professor FitzGerald touched on both of my questions. It seems that economics has not changed, but the climate has. We might need to reverse that. I appreciate the specific comments. I mentioned Brexit as well, but Professor FitzGerald touched on the Covid issues.

Chairman: We are finished with the questions and our time is almost up. On behalf of the committee I thank you for attending today and for the very worthwhile and thorough engagement. It will assist us as we move forward in the coming weeks in the consideration of the draft Bill.

The joint committee adjourned at 1.19 p.m. until 2 p.m. on Thursday, 29 October 2020.