



OFFICIAL REPORT
AITHISG OIFIGEIL

Environment, Climate Change and Land Reform Committee

Tuesday 27 November 2018

Session 5



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ENVIRONMENT, CLIMATE CHANGE AND LAND REFORM COMMITTEE
35th Meeting 2018, Session 5

CONVENER

*Gillian Martin (Aberdeenshire East) (SNP)

DEPUTY CONVENER

*John Scott (Ayr) (Con)

COMMITTEE MEMBERS

- *Claudia Beamish (South Scotland) (Lab)
- *Finlay Carson (Galloway and West Dumfries) (Con)
- *Angus MacDonald (Falkirk East) (SNP)
- *Mark Ruskell (Mid Scotland and Fife) (Green)
- *Stewart Stevenson (Banffshire and Buchan Coast) (SNP)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Roseanna Cunningham (Cabinet Secretary for Environment, Climate Change and Land Reform)
Simon Fuller (Scottish Government)
Sara Grainger (Scottish Government)
Stuart McKay (Scottish Government)

CLERK TO THE COMMITTEE

Lynn Tullis

LOCATION

The Robert Burns Room (CR1)

Scottish Parliament
Environment, Climate Change
and Land Reform Committee

Tuesday 27 November 2018

[The Convener opened the meeting at 09:30]

Decision on Taking Business in
Private

The Convener (Gillian Martin): Welcome to the 35th meeting in 2018 of the Environment, Climate Change and Land Reform Committee. I remind everyone to switch off their mobile phones, as they might affect the broadcasting system.

There has been a change to the agenda that was originally published. We will suspend the meeting after agenda item 5 and reconvene at 2.30 pm to hear evidence from Scottish Government officials on a consent notification that the Scottish Government has sent to us under the terms of the European Union (Withdrawal) Act 2018.

Richard Lyle and Rhoda Grant have resigned their membership of the committee. On behalf of the committee, I thank them both very much—in particular, Richard Lyle, who was a member of the committee for longer than Rhoda Grant—for their contributions to our work.

The first item on the agenda is to decide whether to take agenda item 7 in private. Do members agree to do so?

Members indicated agreement.

Climate Change (Emissions
Reduction Targets) (Scotland)
Bill: Stage 1

09:31

The Convener: Agenda item 2 is the final evidence session on the bill at stage 1.

I am delighted to welcome to the committee the Cabinet Secretary for Environment, Climate Change and Land Reform, who is accompanied by officials from the Scottish Government. Clare Hamilton is the deputy director of the decarbonisation division, Sara Grainger is the team leader in the delivery unit of the decarbonisation division, and Simon Fuller is the deputy director of economic analysis in the office of the chief economic adviser. I welcome you all.

I will ask the first series of questions, which are on the Paris agreement and the recent Intergovernmental Panel on Climate Change report. We have asked many of our panels whether they think that the bill complies with the Paris agreement. What specific temperature target is the bill aiming for? Is the bill adequate for compliance with the Paris agreement?

The Cabinet Secretary for Environment, Climate Change and Land Reform (Roseanna Cunningham): When we originally requested advice from the United Kingdom Committee on Climate Change—in June 2016—we asked it specifically for advice on bringing the new legislation into accord with the Paris agreement in general terms. We asked for advice about an appropriate response to the Paris agreement as we understood it at that time, and given the best available evidence. The aim, of course, was to limit global warming to well below 2°C and to pursue further efforts to limit it to below 1.5°C. That was the backdrop against which we asked for general advice that would bring us within that set of parameters.

Our more recent request was for more specific advice. Some 18 months down the line, we are, of course, in a different place. The specific advice that we sought was on the range that emissions would need to be within to make an appropriate contribution to keeping warming to well below 2°C and to limiting it to 1.5°C.

The response to our original request for advice—the few members left who were on the committee at that point will understand this—resulted in the Committee on Climate Change giving us two target ranges in March 2017. One of the ranges was for keeping warming below 2°C, and that was to reduce emissions by between 78 per cent and 87 per cent. We were already

committed to an 80 per cent reduction, so we were, arguably, already committed to a target for keeping warming below 2°C.

The UKCCC uses what I believe is now common parlance and talks about a “return to 1.5°C”, which means there is an expectation that we might overshoot the target and then have to come back. That is not just us; I am talking globally. That target range was for a reduction of 89 per cent to 97 per cent, which is the range that 90 per cent falls into. That is how we have got to where we are at the moment.

The Convener: We asked a number of stakeholders, including Stop Climate Chaos and WWF Scotland, whether they think that the bill complies with the Paris agreement. They all said no. From what you have just said, however, the bill is on target for reductions that would limit any increase to as close to 1.5°C as is practicable.

Roseanna Cunningham: Yes. That is the advice that came from the UKCCC. That advice is dated March 2017, which is 18 months ago. We need to get the updated advice so that we are in a better position to know whether the 89 per cent to 97 per cent range that the UKCCC was flagging up to us is something that it needs to look at again. That is how we have understood the advice.

I hear the criticism, but it is, in fact, criticism of the statutory adviser to all the Governments in the UK. I am not quite sure where we would be if we were simply to set aside that advice and launch ourselves on some other way of gathering evidence.

The Convener: There is a tremendous difference for Scotland between the impact of 1.5°C warming and that of 2°C warming. Has work been done on the impact if warming is 2°C rather than 1.5°C?

Roseanna Cunningham: That would be quite difficult to do. Apart from anything else, we do not have control over everything, here in Scotland. We chose the tougher of the two targets—we chose a target within the range that would return to 1.5°C. We did that because, although the UKCCC said that that is at the limit of feasibility, it is feasible to construct a pathway to that target. Once we have set the targets, we construct that pathway. Some of the work has begun, but we have not considered the pathway in advance of the bill being passed.

As I indicated, the return to 1.5°C indicates a target range of between 89 per cent and 97 per cent reduction. The 90 per cent target is at the bottom end of that range, but the UKCCC says that it is at the limits of feasibility. There might, I suppose, be some discussion about the range,

unless the UKCCC comes back with a more specific prognosis for net zero emissions.

The Convener: Since the UKCCC advice, we have had the IPCC report. What is your initial reaction to that report? How do you anticipate the bill being amended to reflect recommendations or information in it?

Roseanna Cunningham: At one level, our reaction was the same as everybody else’s. At another level, we could all have anticipated that the IPCC was going to come forward with something like this.

I do not think that we require to amend the bill because of the IPCC report. We are already on track, with the bill, to achieve what the IPCC report is looking for, including being carbon neutral by—in our case—a set date of 2050. What we are proposing lies within the parameters of what the IPCC asks for.

The IPCC is clearly looking at a global scenario and is anxious about countries that are not tackling climate change seriously enough or, as is the case for some countries, not tackling it at all. I am therefore relatively comfortable—as comfortable as one can be, given what we are discussing—that what we propose for Scotland is at the top end of what is achievable.

The Convener: You mentioned that you are waiting for updated advice from the Committee on Climate Change. We have heard that it will respond to you by April. Given the ambition to complete passage of the bill by the start of next summer recess, will there be sufficient time to incorporate the Committee on Climate Change’s advice between stage 2 and stage 3?

Roseanna Cunningham: All the Governments in the UK had hoped that we would receive the advice by the end of March; each has different reasons for hoping for that. We wanted the advice by then so that we could pass the Climate Change (Emissions Reduction Targets) (Scotland) Bill, which was introduced in May. However, neither the Government nor I want to tie the bill too tightly to a timetable that would mean that we would need to proceed without the necessary advice. That would be an absurd position to be in.

At the end of the day, it will be for the committee to negotiate how the parliamentary business takes place. I think that if we get the advice in April, passing the bill by June 2019 is still doable, but I do not want to make the June deadline so hard and fast that it does not allow for our receiving the advice a bit later than would fit into that timetable. We would all probably like to see the bill done and dusted in this parliamentary year, but it is more important that the bill is right and reflects the advice that we receive, than that we stick to a deadline in a timetable.

Mark Ruskell (Mid Scotland and Fife) (Green): You have talked about the “return”—the overshoot scenario in which we go beyond the target temperature increase and then, I hope, drop back down again. Are you worried by the impacts that might occur on the back of that scenario in relation to environmental refugees and habitat and species loss?

Roseanna Cunningham: Those are global issues and worries. The Committee on Climate Change gave us advice on the return scenario, and I expect that it might come back to that issue in its upcoming advice.

We are already seeing some impacts—there is no doubt about that. As we struggle to get the temperature back down again, some global effort will be required on the adaptation side and on the response side. The responses will need to be global, in particular on issues such as refugees, on which the global picture does not look great, at the moment.

Stewart Stevenson (Banffshire and Buchan Coast) (SNP): I am heartened by the cabinet secretary’s view that we need time to accommodate the UK Committee on Climate Change’s next report. If the committee were to decide that it wants to take evidence on the report before stage 3, would the Government be minded to ensure that that would be consistent with any timetable that it pursues? Another option might be to have a chamber debate on the report before we proceed to stage 3.

As I suspect others are, I am anxious to ensure that we give full consideration to the report before the legislative process is completed. I am not asking for a commitment at the moment—I guess that you are not in a position to make one. It will be down to Parliament, to an extent. I am asking merely whether the Government would be prepared to collaborate and co-operate on such a basis.

Roseanna Cunningham: Yes. It is not in my gift to make such a commitment. There will be discussion between the committee, the Parliamentary Bureau and the Presiding Officer on chamber business. The fundamental thing is that we get the bill right, not that we pass it quickly. If that means that the committee thinks that it might need a bit of extra time, I see no problem with that. However, that will not be my decision; the committee will make the decision, in discussion with the relevant authorities. Even after so many years, it is still a bit of a mystery to me how some such decisions come out of the sausage machine.

09:45

John Scott (Ayr) (Con): Indeed—but my understanding is that we might have to go back to

stage 1 to take evidence again. I think that that is what Stewart Stevenson is suggesting.

Roseanna Cunningham: That discussion needs to be had. I do not know the answer: it will depend on the advice of the Committee on Climate Change. The commitment in the bill to meet net zero emissions as soon as practicable is such that it would be relatively easily amended if the Committee on Climate Change comes back with advice that that is a feasible pathway. Such an amendment at stage 2—which is when we would see it happening—would be fairly straightforward. At that point, it will be up to the committee to decide whether to stop and go back to take more evidence. I will not be in a position to decide that for you.

John Scott: We will cross that bridge when we come to it.

Claudia Beamish (South Scotland) (Lab): I want to focus my questions on the scope and implementation of the bill. We have heard evidence about the need for it to be transformational, and I think that this committee and many other people are agreed on that.

Given the number of tangible policies that we have been told about in oral evidence, is the Government considering including in the bill what I would call policy pointers that would support target delivery? Earlier today, I recalled the fact that the Climate Change (Scotland) Act 2009 contained a significant number of policy mechanisms that would help to drive towards the target, such as the single-use bag policy. I would like to highlight some suggestions for this bill. One is the nitrogen budget and another—although it has not yet come up in evidence—is a reinforcement of the stance on fracking. It would also be good to have something about energy efficiency. Those are some thoughts that I have had; others might want to highlight other suggestions.

Roseanna Cunningham: I understand—at least, I appreciate—the thinking behind those suggestions, but we had to make a decision in relation to the bill with regard to whether it was going to be about targets or policy delivery options. If we started to include policy delivery options, the bill could become enormous, as it could end up bringing in things from every portfolio. If that happened, it would become unmanageable, because the committee would have to take specific evidence on specific policy delivery options across a potentially huge range. I caution people not to go down that route. The committee has had a recent example of what happens if you bring in something like that. The processes are such that the capability to understand the applications and to be in a position to make an absolutely informed decision on things is vastly limited.

I appreciate where people are coming from, but is that the best way to handle it? I do not think so. There could be any number of such measures across a range of policies. Claudia Beamish has mentioned energy efficiency, but there is a whole section of the Government that is already progressing energy efficiency and a huge amount of money has already been committed to that, and fuel poverty is being dealt with in another part of the Government. It is not that nothing is happening on those issues, and I am not sure that a bill such as the one that we are discussing is the right way to address them. We decided at the start of the process that it was not particularly appropriate to do that because, in effect, we wanted the legislation to be about resetting targets. At the end of the day, all the policies that will be required to deliver on those targets will be dealt with in each of the portfolios.

Claudia Beamish: Do you agree that what I have termed policy pointers, rather than detailed provisions, would give some clarity to where policy should be going, as happened with the 2009 act? You highlighted energy efficiency. There has been a recent statement in Parliament on that and a strategy is being developed. Other important areas, such as the good food nation, appear to have been kicked into the long grass, with a strategy rather than a bill.

I understand that we cannot have everything in this bill, but not everything was in the 2009 act. Indeed, some of the pointers in the 2009 act have not yet been implemented and may never be. Does listing policy pointers not give confidence? Was that not the purpose in 2009?

Roseanna Cunningham: Is that an argument in favour of listing them?

Claudia Beamish: Some pointers in the 2009 act have been implemented and some have not. Does including policy pointers not give confidence that there are policies that it is important to consider? Perhaps some may be controversial, such as some of the agriculture policy proposals, which there is a lot of uncertainty around.

Roseanna Cunningham: The committee would need to take detailed evidence on some of those things.

Claudia Beamish: That is what has happened.

Roseanna Cunningham: I do not know whether the committee would be in the best position to do so over a range of potential policies.

Claudia Beamish: That happened at the point at which it was necessary with the policies that have been taken forward, such as the policy on single-use bags.

Roseanna Cunningham: I do not think that that was triggered by what was in the act. It was happening anyway.

This discussion is about the nature of legislation. If the committee will forgive me for reverting to my previous profession as a lawyer, I say that if we legislate for vagueness, we will get vague legislation. That is not particularly helpful in the long run. This piece of legislation is not the right place to start dealing with specific policy pointers, as Claudia Beamish calls them. Those would be vague. There are plenty of other legislative and policy opportunities through which to progress such pointers.

Every one of my colleagues will be tasked on the basis of the targets in the bill to progress the necessary policies in their portfolio area. I have already begun bilaterals with colleagues about the implications of what the bill proposes.

Finlay Carson (Galloway and West Dumfries) (Con): To back up what Claudia Beamish said, I say that, throughout the evidence that the committee has had, we have heard about various policies that would help Scotland reach the targets more urgently. Are you ruling out the need for the targets in the bill to be underpinned by supportive policies?

Roseanna Cunningham: No, I do not think that that is what I said. There is a difference between setting things in the legislation and understanding what is required to achieve the legislative targets that the bill is about. If things are set in the legislation, that has implications. This is a high-level discussion about the nature of legislation and how government should proceed.

I caution the committee to think carefully about that. There has been a recent example of what happens when a specific policy is brought into a general bill. People may feel, and I think that most committee members did feel, that not enough evidence had been brought forward for the decision to be properly informed.

I understand the temptation and I am not saying that, if I were sitting on the other side of the table, I would not also be tempted. The reality, however, is that legislation locks things down for the future. At this point, we do not know what provisions might be needed. We are setting out on a course and would not want to have our hands tied in certain directions. If legislative provisions do not tie hands, they are meaningless and become points of dispute, which is something that nobody wants.

Angus MacDonald (Falkirk East) (SNP): The Government considers not legislating to be the most effective route to take for the just transition commission, stating that

“providing a statutory basis for the Commission would delay the work we want it to undertake.”

Why will placing the commission on a statutory footing “delay the work”, and what will be happening with the JTC between now and June next year?

Roseanna Cunningham: First, there is a debate over the June date, as we are into what is potentially a fairly long legislative process.

Secondly, we have already appointed a chair of the commission, and I will soon be appointing its members. The expectation is that it will have its first meeting in January with a remit to deliver advice within two years, and not legislating for it gives us the fleetness of foot to enable us to take that approach.

I have no idea when this bill will get through stage 3 or when it will get royal assent, but let us presume for the purposes of generalisation that it gets through in June and receives royal assent perhaps by autumn, at which point it comes into being. If the just transition commission is put into legislation, I will at that point have to pause the existing commission, and we will then have to go through an entire public appointments process to appoint the commission’s members. That will take about four or five months; people will find that difficult to understand, but anyone who has gone through and understands the procedure will know that it takes a very long time.

We will then have to set up an independent secretariat, with all its associated costs, and the likelihood is that the set-up will not be in place until about a year later, at the very minimum. In the meantime, we will have to stop the just transition commission that will already be doing all this work, because of the commission that has been legislated for. I do not think that that approach will aid us if we have to stop the work that is being done. An already appointed just transition commission cannot continue if there is legislation that requires the commission to be put on a legislative footing.

Indeed, if we put the commission on such a footing, we will have to argue about how long it will sit for, which is an issue on which I know there is a hugely different set of views. Moreover, its costs will change, depending on that decision. There is a just transition commission that is about to start work right now and which will give us advice in two years. At that point, we can consider how best to progress.

The just transition commission that we are putting in place right now will be the first of its kind in the world, and I think it far better that we crack on now and deal with some of the really important issues that the commission needs to deal with instead of having to deal with the awkwardness of

setting up a statutory commission, with all the costs and time that that would entail.

The Convener: I will take Mark Ruskell next and then come back to Claudia Beamish to finish this line of questioning.

Mark Ruskell: I want to return to the previous point about what and, indeed, whether policies go into the bill. I suppose that some of this comes down to what confidence the committee has in the other parts of legislation or the Government picking up on whatever target is in the bill, whether it be net zero by 2050, 2040 or whatever, and putting in place the right policies to drive that forward. How much reassurance can you give the committee that there is a plan B for the other parts of the Government so that, if the bill ends up with a higher target than it has at the moment, the legislative frameworks that are needed to deliver it will be put in place?

Roseanna Cunningham: I would have expected the confidence to come from the fact that Scotland has already reduced its emissions by 49 per cent since 1990. We are well on the way and well on track, and everything that we are doing is at the very top level of ambition as far as anything else in the rest of the world is concerned. I would have thought that that in itself would give you confidence. In a sense, what you are asking me betrays one of the difficulties. You want to try to second-guess, across all the portfolios, what particular policy things they should be doing and then lever those into the bill. That really is not the best way to progress. Although I understand the temptation, it is not appropriate for us to do that. I guess that there is a fundamental difference between our approaches.

10:00

Mark Ruskell: I did not necessarily say that I was suggesting that. I was just putting it back to you for you to reassure me, so that I do not have to.

Roseanna Cunningham: I can reassure you only about this Government’s intentions. I cannot reassure you about a future Government of any colour, but that is the same with everything. The bill will bind us to targets, but the policies that are used to achieve those targets may vary. There may be lots of alternative options, but I do not know. That is one of the things that I hope the Committee on Climate Change gives us good advice on.

The Convener: Of course, the climate change plan is key.

Roseanna Cunningham: Yes.

The Convener: When can we expect a new or updated climate change plan to be published?

Roseanna Cunningham: In a sense, that is a follow-on discussion, because that is about the way in which we are doing things. That is why we have taken the approach that we have taken just now. Under the 2009 act, the next plan is due in late 2021-22. I go back to the point about when we might expect the bill to be passed. We have only just come through a climate change plan process. Do we get to the end of 2019 with an expectation that, somehow, we can create an entire new climate change plan from scratch in the space of a year, although it took two years to produce the existing one? Alternatively, do we consider updating or redoing the existing climate change plan to take account of whatever targets we end up with in the bill?

We need to have that discussion. Another reason for having it is that there is an issue about scrutiny periods for anything that we do. I will consider that as soon as the bill has passed through Parliament. There will be a difference if the bill gets through in June rather than slipping into the following parliamentary year. I will think about whether it is more appropriate to update the current plan in the short term or to bring forward a new plan quickly. However, I have to say that bringing forward a new plan involves a minimum 12 to 18-month exercise. If we do not start it until the end of 2019—which would mean starting a new plan almost as soon as the ink has dried on the royal assent—we would not finish it before the next Scottish parliamentary election. We are stuck with the parliamentary timetable, whether we like it or not. I need to think about that and, obviously, we will discuss the issue further with the committee.

Claudia Beamish: I want to go back briefly to the just transition commission. It is surely a question of balance. You used the term “awkwardness” in talking about that—I do not want to summarise what you said, because we heard it and it will be in the *Official Report*. However, I want to ask you again about the fact that, when we set the targets for net zero, whenever that is, the whole thrust must be that there is a fair way forward for affected communities and workers. I am delighted that a commission is to be set up, but surely the awkwardness and complexity of having a statutory commission must be weighed up against the importance of ensuring that, as with the targets, whatever Government we have, the commission drives us forward in a fair way. I have concerns about the just transition commission not being on a statutory basis.

Roseanna Cunningham: I do not think that that follows. You are falling into the trap of assuming that the just transition commission is the only place where those conversations are happening. We have a number of other things. Like all Scottish Government policies, the climate change

plans are subject to impact assessments. There is a duty to carry out an equality impact assessment and a fairer Scotland duty assessment, where that is appropriate. The purpose of the fairer Scotland duty assessment is to ensure that those living on low incomes—that is not just about employment—are not disproportionately disadvantaged as a result of policy decisions.

We have to consider various criteria, including social circumstances, in relation to some of the bill’s targets. An equality impact assessment, a children’s rights and wellbeing impact assessment and a fairer Scotland assessment were all carried out on the bill’s proposals. Indeed, we have not set the net zero target date at this time because, until we have a credible pathway, there may be negative social consequences, which we do not want to see.

It is not the case that those things are not being looked at; they are simply not all being dealt with by the just transition commission—the issues are being taken on board in a lot of other Government policy areas. An argument that the just transition commission has to be on a statutory basis does not necessarily follow. In any case, I return to the fact that, as I understand it, once a just transition commission was legislated for, in effect we would stop the current just transition commission from continuing. It would take considerable time, effort and cost to set up a statutory commission, so we would lose at least a year of really important work that we do not have time to lose.

It is a case of pressing ahead now, rather than waiting for the commission to be put on a statutory basis. That is why we have done what we have. We have decided to press ahead. I am sorry if going too fast is a problem, but we are doing it.

Claudia Beamish: I have never said that we are going too fast, and I have never criticised the just transition commission. I am simply saying that there is a lot of robust argument, including from unions, non-governmental organisations and businesses, for putting the commission on a statutory footing. I would have thought that there could be a way to move towards that position, so that, whoever is in government, we have an inclusive partnership of dialogue. That is a different view, so perhaps we should just agree to differ.

The Convener: Angus MacDonald wants to ask questions on the same theme.

Angus MacDonald: We have covered the just transition commission, but it is probably fair to say that the majority of stakeholders that we have asked are keen to see it put on a statutory footing.

I will follow on from all that and look at transformational change. The evidence to date has shown—and we all clearly see—that there is a

need for “transformational change” and that it should be “systemic” rather than just at an individual level. It has been noted that there is no “all voluntary future” and that climate change cannot be solved without statutory backstops.

I am keen to hear how transformational change can be achieved while retaining sectoral and societal buy-in. For example, are there limits to public acceptability? To what extent can transformational change be voluntary?

Roseanna Cunningham: I preface everything that I will say about that with a reminder that we live in a democracy and that everything that is done in a democracy must have, if not the explicit support, at least the implicit support of the majority.

It is possible for Governments to do fairly ambitious things—we have seen a smoking ban introduced, and we have minimum pricing of alcohol. Two different Governments brought in those measures, and it is probably fair to say that there was a degree of muttering in certain quarters about both of those proposals; members of the public were not particularly on board for either. Nevertheless, there was an implicit understanding that the proposals tackled problems that needed to be tackled. In some cases, people were a bit reluctant, while in others they were more enthusiastic, but they were willing to accept that those were, if not their preferred options, at least reasonable ways of taking things forward. It is really important to state at the outset the need for that implicit, if not absolutely explicit, support.

Climate change is on the verge of becoming part of that scenario. The most recent Scottish household survey showed that concern about climate change is beginning to penetrate the majority of households’ and people’s minds, and that is an important indicator of the possibility of pushing forward with climate change policies that might accrue implicit buy-in. That buy-in is important, and we have to know that we are going to get it. As far as policies and certain sections of the community are concerned, that will be easier to do in some areas and harder to do in others.

This is not just a straightforward, across-the-board game that we are talking about; it is something that we have to engage in at every level. Indeed, behaviour change must happen at every level, too. What slightly frustrates me is the way in which, in this debate, we jump from what the Government is doing to what individuals are doing without looking at the range of other groups and institutions, both public and private, in between. Behaviour change can be driven by exemplars. If, for example, a big private company begins to make statements on the matter and makes changes, that helps to build the implicit buy-in that we want across the board. I do not

want the conversation to be just about what the Government is doing and what individuals are doing, because there is a whole range of behaviour changes in between that I think are necessary, too.

We must ensure that people know about the technological changes that will help and, as a Government, change our approach to behaviour change. Last week, we announced that we had finished a review of the current public engagement strategy, which is provided for under the 2009 act, and our conclusion is that we need to revise that strategy to ensure that what we do is commensurate with the targets in the bill. We know that the scenario is constantly changing and that we have to keep up with it. I do not know whether colleagues were aware of the review of climate change behaviour issues, but we are thinking about the issue.

Angus MacDonald: We welcome the behaviour change that is happening, but are there any plans for statutory backstops?

Roseanna Cunningham: I do not know what you mean by “statutory backstops”.

Angus MacDonald: I am talking about backstops that will ensure and encourage further behavioural change.

Roseanna Cunningham: I do not think that we can legislate for behaviour change—what we can do is constantly engage and encourage. In that respect, we have identified 10 key behaviours, and we have the public engagement strategy to which I have just referred. We are going to publish a refreshed strategy as soon as possible, but I am not sure—

Sara Grainger (Scottish Government): May I come in, cabinet secretary?

Roseanna Cunningham: Yes.

10:15

Sara Grainger: The cabinet secretary made the point that many of the policies need to be taken forward in different portfolios. An example that touches on your question, if I understand it right, is the work that is being done as part of the energy efficient Scotland programme, which involves quite a lot of behaviour change—for example, in how people use their heating systems and in the decisions that home owners make about insulating their homes. Consideration is being given to how to encourage home owners to better insulate their properties and when to stop encouraging them and absolutely require them to do that. As that involves huge costs for home owners, the issue is being considered carefully. If that is the kind of behaviour change that you are talking about, the

conversations about such considerations take place in the relevant portfolios.

Angus MacDonald: Thank you.

John Scott: I declare an interest. How will the Scottish economy and Scottish society have to change to achieve a 90 per cent target and a net zero target? What change do you foresee?

Roseanna Cunningham: It is difficult to foresee what change would be required in relation to a net zero target. The UK Committee on Climate Change said that it could not see a pathway to that target. If we were to set a net zero target without there being a pathway, that would, in effect, take us into the realms of high-level guesswork.

The Committee on Climate Change thought that a 90 per cent target was at the outside of feasibility, so every sector of society will require to think about the changes that need to be made. A 90 per cent target is challenging for us from the point of view of transport and the other obvious areas that have been flagged up. The energy transformation is already taking place and will continue to proceed quickly. The challenges that we face relate to buildings—we are dealing with that issue through the fuel poverty and energy efficiency work—agriculture, which I know the committee will often come back to, and transport. I have already had conversations with my colleague Michael Matheson about the changes that are required in transport.

I go back to the comment that I made about behaviour change and the need for us not to jump automatically from the Government level to the individual level. A range of bodies need to be challenged on, for example, their policies on their car fleets. At what point will they make the transition to low-emission vehicles? When we are being called on to increase targets, it is fair to ask companies and institutions when they expect to do such things and what their plans are.

A variety of measures might be taken. We will have to add them all up, and that will be part of our consideration of the climate change plan, which we discussed earlier.

John Scott: Would it be fair to say that you are prepared for such societal change to be brought about not necessarily by the provisions in the bill but in different portfolios that other cabinet secretaries are in charge of? In other words, you are charging them with responsibility for delivery.

Roseanna Cunningham: In effect, that is how we progress; that is how we have got to where we are. As I indicated, I have started to have direct conversations with colleagues in the areas that are most likely to be affected, to flag up the need for them to go back—notwithstanding the fact that they have just come through the climate change

plan process—and start to think more ambitiously about what can be delivered in each of their portfolios.

However, as I said, I think that this is a task for everybody. It cannot just be the Government that takes action; action will have to be taken at every level of society. If we want fossil-fuel vehicles to be phased out by 2032, I would like to hear about what companies and other institutions are doing in respect of their activities and provisions.

I am sometimes a bit naughty when I have these conversations. When I get the calls, I want to say to, for example, the Church of Scotland and the Catholic Church, “Well, when are you going to tell your priests and ministers that they are not going to be permitted to buy a fossil-fuel car?” Those decisions have to be made as well, and I want to hear back from some organisations what their decisions are going to be. It is not good enough just to call for the targets; everybody has to buy into them. I am not asking everybody around this table when they plan to do that, but it is a decision for individuals, institutions and the Government all together.

John Scott: You do not have a particular biblical reference to back up that statement.

Roseanna Cunningham: On ultra-low-emission vehicles? Sadly, I do not. I will seek one, because I am sure that there is one somewhere that will suffice. There usually is, and there might even be a Shakespearean reference that does the job as well.

I am trying to make the point that an effort is required at every level of society. I am concerned about jumping from the high level of Government down to the level of individual behaviour and putting it on the individual's shoulders when there is a range of things in between that we can reasonably expect to see movement on as well.

Stewart Stevenson: I think that the cabinet secretary was maybe struggling to go for the tower of Babel with regard to a biblical reference.

Roseanna Cunningham: We could have a theological discussion, if you want.

Stewart Stevenson: Indeed, but on another occasion.

I want to explore the targets a wee bit. In particular, substantial pressure has come from many of the stakeholders who have appeared in front of the committee for the Government to set a net zero target sooner rather than later. Before I go on to that, I will develop a bit of what has gone before and ask whether particular policies that might advance the climate change agenda, such as electrifying the car fleet, might have adverse effects if improperly implemented.

For example, given the substantial sunk carbon costs of new vehicles, it would be unhelpful if we doubled the size of the car fleet, which we might do if we thought there would be a zero-carbon effect. I was thinking of the renewable heat initiative in Northern Ireland, which was a good idea if a boiler was replaced with a better boiler. However, an awful lot more boilers were installed, so the effect was negative, not positive.

Roseanna Cunningham: That is an important issue to raise, because, when we are looking at a policy option, we have to think about the whole life of the item or all the consequences of its introduction. That applies to virtually any of the delivery decisions that we might make. In addition, a lot of delivery decisions might be predicated on a technology that, at the moment, we are not certain is the right way to go, which is another issue to be considered.

With a lot of things, at the moment, we are at the VHS versus Betamax stage of the debate. Who would have been able to predict which one of those would be the technology that everybody would go for? I am not sure that we are in that space with some technologies. That complication has to be looked at for all the proposals that I see being mooted not just in evidence to this committee but out there. We all read about them and see them, and I think there are real consequences of going down that road. In general terms, the consequences might not be immediately evident when we make a superficial call or introduce a policy without proper evidence.

I do not want to get drawn too far into a discussion about cars, as I have never owned one in my life, so I do not have much of a feeling for that area. However, I am conscious that the proliferation of cars may not be the best thing to happen for a lot of reasons. The speed with which one can make the changeover is another issue. Nevertheless, it is obviously where we have to go, and that change will have to be managed. People have questioned the increasing electricity use that will be required if we go down that road, and such things all have to be factored into any decision about cars. There will then be the argument that, rather than increase the use of cars, we should increase the use of public transport. All of that has to be taken into consideration.

Stewart Stevenson: One sector in which the speed of change is seen as particularly difficult is agriculture. Is the Government thinking about the balance that there could be? For example, if we were to move ahead with something that we know we probably can do, such as upping our exports of zero-emission electricity, given that we have huge potential for renewable energy, that could take us towards net zero without doing anything on agriculture. Is that part of the thinking, or is the

Government considering the feasibility of particular things that can be done in agriculture?

Roseanna Cunningham: I am having conversations with my colleague Fergus Ewing about the issue, and I have had meetings with a range of agricultural associations. They are in no doubt that, in effect, a bit of tough love is needed—they are aware that they need to make changes. However, there are issues with making changes. We cannot produce food without emissions. There is no way in the world to produce food without emissions. There will always be agricultural emissions; therefore, to an extent, there will always be the need to balance, and whether we balance through a calculation that is about exporting renewable electricity or in a different way is a matter to be considered as things progress. The aim with agriculture and food production is to reduce emissions as far as is reasonable, manageable and doable given the current understanding and tools that we have available. However, we will never get emissions in that sector down to zero, because producing food—which is a fairly fundamental thing that we all have to do—will produce emissions.

The Convener: I presume that we do not want to shift emissions to other countries by making it too onerous for people to produce food here.

Roseanna Cunningham: That is an issue. There is a big question mark over some of the ideas that are floating about in respect of people's diets and all the rest of it—in my view, they would simply shift emissions, which is not particularly helpful in a global sense. If people offshore emissions because of decisions that we make, that is the other side of the coin that Stewart Stevenson mentioned when he talked about our ability to balance using other mechanisms within our economy. Equally, we may end up offshoring emissions, which is not particularly helpful.

Mark Ruskell: I wonder where the evidence is for that offshoring argument. A couple of years ago, the World Bank produced a report that said that environmental policies have been found to induce innovation to offset part of the costs of compliance with environmental policy.

Roseanna Cunningham: I suspect that such policies do both—they encourage innovation and run the risk of encouraging offshoring. I remind members that we are making decisions in Scotland, which is a devolved part of the UK. If our climate change targets encourage businesses to move south of the border, it is easy for them to do that but it does not help us. Given that we have domestic targets in Scotland, from our perspective, offshoring is more about going to the rest of the UK than about going elsewhere completely.

10:30

I think that both things can happen. Scotland has a great history of innovation, and it continues to innovate, particularly in the areas in question, but there is also a risk. That is why, for example, Norway—which has not set a target, as it has not legislated—has said that it will reach net zero emissions by 2030 if other countries do the same. What is driving its ambition is its need to ensure that it does not get itself so out of kilter with neighbouring countries that it ends up, in effect, causing itself a problem by having parts of its economy disappear over the borders.

Mark Ruskell: You have spoken very negatively about a net zero target. I do not think that I have heard a positive argument from you or any of your officials about that in the past year or so. Can you see any advantages—to the economy, for example—of setting a net zero carbon target?

Roseanna Cunningham: If we did not, we would not be asking the Committee on Climate Change for advice. The point about the net zero target is that, at the moment, we do not know how to get there. We have said right from the outset—from the moment that the bill was introduced—that, if we can get advice about how to get there, the bill was drafted in such a way as to allow us to amend it immediately there is a pathway.

It is not about being negative; it is about needing to be credible and realistic, and needing to see a way to get there. We are already among the most ambitious countries in the world in terms of achieving emissions reductions, and that will not change.

Mark Ruskell: Do you see any advantages to the economy of setting a net zero target and driving innovation? Do you see any advantages in being a first mover on technologies, rather than waiting to see what Norway does and adopting that somewhere down the line?

Roseanna Cunningham: That is not what I was saying. The point that I was making was that, if we set out with a target without knowing how to get there, we would run a real risk of making serious mistakes. I want to get advice from the Committee on Climate Change before we embark on that. However, the minute that that advice comes—the minute that the CCC says, “Here is the pathway”—the Government will adopt it.

Finlay Carson: I want to go back to agriculture and the red meat sector in particular. We must remember that we are only 75 per cent self-sufficient in beef. Throughout the evidence sessions, we have heard perhaps not enthusiasm but certainly an acceptance from academics and the college sector and from farmers that there is more that the sector can do. There is an open-mindedness on that. The suggestion is that most

of the difference between a 90 per cent reduction and a reduction to net zero is down to nitrous oxides, and a lot of that will be down to agriculture and transport. Around six months ago, there were lots of rumours—or a bit of scaremongering—that suggested that, if the Government were to go for net zero, that would decimate the red meat industry in Scotland. Is that your belief?

Roseanna Cunningham: One of the challenges relates to the residual gases that we are talking about other than CO₂. It is not just about nitrogen; it is also about methane, and methane is a particular issue for meat production.

I go back to what Stewart Stevenson asked about. There is a bigger issue to do with meat production globally, as opposed to how it is managed in Scotland, and there is a tendency to generalise globally. Because something is done in one way in many countries, is that what happens here? I am conscious that a lot of work is being done on the issue, and I know that farmers—particularly those who deal with beef cattle and sheep—are very aware of it.

However, we need to remember that around 86 per cent of the agricultural land in Scotland is in less favoured areas. The hill farmers are already on marginal incomes, so it would not take much to tip them over the edge and end their businesses. I am really conscious of that. We have had a long discussion about a just transition. That is not just about workers; it is also about consumers and individuals, and about some farming sectors. I know that some of the farmers we are talking about live off incomes that range between £14,000 and £18,000, which most people would find astonishing. We have to be careful about the decisions that we make here and what they mean.

Carrots and potatoes are not suddenly going to grow on that 86 per cent of agricultural land in less favoured areas, which is not suitable for any other type of food production. We need to take all those things into account when we think about the effects of some of the decisions that might be made. I am as conscious of all that as anybody is or should be. There will be real impacts on real people.

Finlay Carson: A document was published around the time of the Royal Highland Show that suggested that meat production in Scotland would be decimated if the decision was taken to go to net zero.

Roseanna Cunningham: We certainly produced an analysis that said that, without having a specific pathway, the difference between 90 per cent and net zero would put enormous pressure on food production, and particularly meat production.

I cannot imagine that anybody here is unaware of the widespread discussion that is taking place about rapid dietary change being required, which would end up with nobody eating meat at all by 2050. If nobody is eating meat at all, the implications are pretty enormous for anybody who makes a living, however marginal, from the production of meat.

There is real concern about managing the situation. That is why we have to work with farmers to try to get them to a place where we understand what they are doing and how they can get their emissions down as far as possible, and then use some of the balancing-off from other areas. At the end of the day, we all need food, and food has to be produced. Even if people do not eat meat, plants still have to be raised. Whatever we eat, its production will have involved emissions. We just have to be careful about the changes and what they might mean for particular sectors.

Finlay Carson: Right now, with the evidence that we have and the information that you know, if we went to net zero, you believe that it would decimate meat production in Scotland.

Roseanna Cunningham: I do not use words like “decimate”. What I understand to be the case is that this is one of the areas in which we would need to make quite draconian decisions. My point is that there is also a just transition issue here. People produce food on land that will not produce any other food if they no longer farm it in that way. We already import a significant amount of meat, and if we increase those imports, we are in danger of increasing emissions elsewhere.

It goes back to the complicated equation between a decision that we make here and its potential effects on emissions reduction. There could be a positive effect on our emissions and a negative effect on those of other countries. That is why it is complicated.

I do not have an easy answer. Everything I read that suggests that we all have to be vegetarian, if not vegan, by 2050 presupposes that nobody in Scotland will be producing meat. The consequences of that would be pretty drastic, and in those circumstances would have to be thought through very carefully. I am trying not to be alarmist. I am aware that there was some discussion around the RHS that got a bit alarmist. Nevertheless, it is an important issue. If a decision is made in one place, it has consequences in another.

The Convener: Talking of other places, the cabinet secretary will have seen the evidence that we got from our Swedish colleagues, in particular the politician Anders Wijkman, who talked positively about Scotland’s ambition. Here, Sweden is pointed to as the epitome of good

practice on the net zero target and so on. The Swedish system, policies and targets are quite different from ours.

Roseanna Cunningham: That is one of the things that has surprised me most in doing this job. I took it as read that international comparisons compared like with like, but that is not the case. The more I understand that, the more I realise that what one country says and does compared with what another says and does can vary considerably and make it almost impossible to do a straight read-across.

That is one of the weaknesses of the international system. It is not within my gift to fix that, but it ought to be fixed. When we look at what another country says that it is doing, it is hard to know how that compares with what we choose to do. The Scottish Government still refers to Sweden as being in the forefront of policy and says that we are second only to Sweden.

The Convener: Anders Wijkman said that about Scotland.

Roseanna Cunningham: If they say that about us, perhaps there is a debate in Sweden that says that Scotland is ahead. I do not know, because I am involved only in our domestic debate.

There are countries that do not include LULUCF—the land use, land-use change and forestry sector—at all. When I ask their ministers why, they say it would be too difficult. Ireland does not include LULUCF in its announcements because it runs four peat-fired power stations. We include a share of international shipping and aviation, but other countries do not—including, I think, Sweden. There is also the issue of carbon credits, on which our approach has been different from that of others. It is frustrating, and I always want to look behind the announcements now. That is why I mentioned Norway. Norway made an announcement about net zero by 2030, but I have looked behind that: the target is not statutory and it is predicated on things that arguably mean that it is challengeable.

We do things in a way that is constrained by legislation and which includes annual targets. We are the only country in the world with annual targets. We are the only country in the world where the Government has to come to Parliament every single year and explain each set of statistics on greenhouse gas emissions. There is no other country in the world where a climate change minister has to do that. In those circumstances, why would we not say that we are among the most ambitious in the world?

The Convener: That is a good point at which to turn to John Scott’s questions on interim targets. I will try to bring in other members. I want to move

the agenda along so that we get to everyone's questions.

John Scott: Before I ask about interim targets, I want to ask a question on the previous subject.

Please accept at the outset, cabinet secretary, that I am not really setting out to be awkward—

Roseanna Cunningham: He said, setting out to be awkward.

John Scott: —but you will be aware of the revolutionary work in Queensland in northern Australia on reducing methane in cattle through the use of seaweed. Under laboratory conditions, the approach reduces methane output by 90 per cent. Some of our research institutes are already aware of and looking at that, but were it to be discovered that seaweed around Scotland shared the same properties that seaweed on the great barrier reef apparently has to facilitate methane reduction in cattle in Scotland, how would we harvest it?

10:45

Roseanna Cunningham: If we have this conversation, we might simply end up reiterating a conversation that we have already had. An easy answer might be that there is obviously real potential for seaweed farming, and I think that we can all agree that that would be a good way forward.

I do not know the details of the research to which you refer, but I am aware that a lot of work on methane is being done around the world, and we need to be absolutely clear about the practical implications of such scientific research and whether it will work in Scotland. I am sure that Scottish Government officials and, indeed, farmers will be watching that work carefully, because such a way of proceeding could well become very advantageous, if the research is borne out in practice.

John Scott: Many thanks. I will now ask the questions that the convener wants me to ask, which are on the adequacy of interim targets. Given that the 2020 target is on course to be achieved, is it actually challenging enough?

Roseanna Cunningham: You have raised the slightly existential question whether a target is only a good target if it cannot be achieved. If that were the case, you would come and beat us around the head for not achieving it. In that sense, we cannot win if we set a target that is achievable, however stretching it might be, and if we do not achieve it, we are seen to have failed. I do not know any easy answer to your question—all we can do is set targets that seem to be realistic and credible on the basis of the evidence that we have when we set them. In 2009, we set targets that have turned

out to be more achievable, but we could not have foreseen at that time some of the things that happened subsequently.

John Scott: I agree. We should be celebrating having achieved the targets instead of beating ourselves over the head for not doing so.

Why has the Scottish Government decided to take a linear emissions reduction pathway to 2050, given what we have heard in evidence about the risk being exponential? Of course, I would need to discuss with Stewart Stevenson whether, by saying the term “exponential”, I am using the right scale in that respect.

Roseanna Cunningham: First, we are constrained in the way that we do things here, in that we have to set out in the climate change plan and so on how we will progress towards the final target of 2050 and show what will happen at each stage. To a certain extent, that binds us into a linear way of thinking.

It is always easier to look at things in the short to medium term, because you will have more confidence about what might or might not be required and what might or might not be available. It is harder to know such things as you move into the longer term. I know that we are not yet at 2020, but trying to think about, say, the year 2040 would be equivalent to trying to think about the year 2020 back in 2000. Some of the things that we are doing now would have been unthinkable and unforeseeable just 20 years ago. There is therefore a constraint in that respect.

The way we are trying to do things at the moment is, I think, the best way possible. I am also not sure what the alternative to linear targets would be.

Sara Grainger: The other way of approaching the question is to ask not why we have linear targets, but why we have not taken any of the other approaches that we could take. For example, we could take a steps-based approach, related to when we expect technology to come on stream, but that would become a guessing game in which you would bet on which year things would come in.

Another possibility would be to have a curve, one way or the other, perhaps with greater effort in the near term. However, we already have the most ambitious targets in the world for 2020 and 2030 and, as the cabinet secretary has made clear, we think that credibility is very important, so we do not think that we can do anything morer in the nearer term.

Roseanna Cunningham: Is that a word?

Sara Grainger: I have invented it. We assumed that doing less in the near term and more later would not be acceptable to stakeholders or the

Parliament, so that leaves us with a linear pathway.

John Scott: I see. There are reasonable questions to be asked. Why should we wait until after 2030 for more rapid decarbonisation? In evidence, the committee has been told that the tools and much of the technology already exist in many sectors, but they need to be applied. There might be the issue of the cost of applying that technology sooner rather than later—I see Mr Fuller from the Government's finance department nodding his head sagely.

Roseanna Cunningham: I suppose that we could have this conversation ad nauseam. We are trying to progress and make changes while keeping in mind all the other issues, such as the consequences, a just transition, social justice and so on, that we need to think about. That is why everything needs to be credible and realistic, because we need to be in a position to make the changes in a way that will not damage sections of society.

I know that there is a bigger argument that, if we do not make the changes, damage is coming anyway from climate change. That is why we are setting out our long-term targets and trying to ensure that all the things that we do work through that balance.

This is a challenge for every single country, but Scotland is meeting that challenge far better than virtually any other country. Are we meeting it perfectly? Perhaps not. Maybe in 20 or 30 years' time, everyone will be able to sit in this room—I presume that it will not be us—and, with hindsight, look back and say, "They should have said X, Y and Z," but we can make decisions only on the basis of the information that we have now. That is what we are doing, whether that be in the energy portfolio with the rapid changes that we have made in decarbonising energy—that work will continue apace—or work that cuts across all the other portfolios, too.

John Scott: For the record, do the interim targets, as set out in the bill, fulfil the IPCC's requirement for

"rapid, far-reaching and unprecedented changes in all aspects of society"?

Roseanna Cunningham: Yes, absolutely.

Sara Grainger: The IPCC report said that the world needs to reach peak emissions very soon. Scotland has passed peak emissions—we have halved emissions since 1990 and we have the most ambitious targets for 2020 and 2030. That very much delivers on what the IPCC has said.

Mark Ruskell: Are there some assumptions that could still be challenged? For example, there is the assumption in the UKCCC advice that, in

2050, we will still be producing electricity by burning North Sea gas. That seems like a very early 20th century debate. Surely technology will have moved on by then.

Roseanna Cunningham: It might have. Oil and gas production is changing rapidly, and I cannot foresee what might be the case in 2050. The Committee on Climate Change is not in any better position than we are, in terms of being able to anticipate what technologies will be available and applicable to that industry, or to any other industry, 32 years from now. That is the difficulty in all this. Unbeknown to us, we could be on the brink of major technological changes in some areas, or we might not. We need to proceed on the basis of what we know now, as opposed to what we think might be the case in another 20 or 30 years' time.

Claudia Beamish: Some people would argue—it is a credible argument; I mention that because you have talked about things being credible and realistic—that the climate change plans are the policy mechanisms by which, on the back of innovation and technology that develops over the next 30 or 40 years, we can be even more ambitious than the 90 per cent target that you think that we should go for. Surely that pathway is there.

Roseanna Cunningham: Yes, but we do not legislate the climate change plan. The plan is an official document that involves a constantly changing discussion that Government has to have with stakeholders and the committee. I have already indicated that the minute that the bill is through, we will revisit the current climate change plan, which, I remind you, was signed off not that long ago. We will have to consider it again, because it will have to be updated. I see that Claudia Beamish is shaking her head, and I appreciate that the committee might feel that it is engaged in a constant cycle of thinking about the plan but, in truth, that is the case. That is where these discussions and detailed conversations need to be had.

Finlay Carson: Section 5 sets out the target-setting criteria. Generally, people have welcomed the additions and the updating of the position in the 2009 act. However, some people have suggested to us, in relation to the target-setting criterion about not exceeding the fair and safe Scottish emissions budget, that the term "fair and safe" should be defined and calculated. What are your thoughts on that?

Roseanna Cunningham: The term "fair and safe" concerns the total amount of emissions over the period that the Committee on Climate Change thinks would be consistent with an appropriate Scottish contribution to global efforts. Basically, that is all that "fair and safe" means. I understand that, to a lot of people, that sounds a bit circular

and does not say very much. There is an issue around that, and there is a possibility that that could be tweaked if people are particularly interested in that issue. The term “fair and safe” could be expanded beyond that, or could be made to be a bit more specific. That is a conversation that could reasonably be had with the committee and others.

Finlay Carson: There was certainly a desire that the term should be defined and calculated. There was also a suggestion that public health should be one of the target-setting criteria. Should public health be added? That could relate to preventative health spend, fuel poverty and so on.

Roseanna Cunningham: That is a discussion that we could have if we decided to add things into “fair and safe”. However, there is a danger that we start to expand the term by including so many things that it becomes meaningless. If you recall, I said earlier that there was quite a lot of work being done in other parts of Government on some of those aspects. To some extent, the just transition commission is about the “fair” part.

There is a discussion to be had about this issue, and I am happy to have that conversation.

Mark Ruskell: How do you define “achievable” in relation to the net zero target?

Roseanna Cunningham: In effect, “achievable” means being able to show how we get from here to there in a way that is credible and realistic. That means avoiding rhetorical flourishes and, instead, looking at what can be done and the timescale in which it can be done. Achievability has to be quite specific: it is not simply about setting a target without thinking about how you get there.

We cannot set a target that is not achievable. If people respond by asking, “What is the point in even trying?” that means that it is not achievable, and Governments in future will simply shrug their shoulders and say that they cannot be blamed for not meeting those targets, because they were simply not achievable.

11:00

I think that Lord Deben indicated to the committee that there is a degree of judgment around this. If it is financially possible, there is a technological pointer or they can put together a way of getting there that does not require what is in effect a leap in the dark, that is an achievable pathway. That is all that we are looking for. We cannot get absolute certainty, so we are looking for something that we can present to people, in practical terms, as how we get from here to there, what we need to do and what we need to be thinking. That is the achievability issue.

Mark Ruskell: Let us say that we set an ambitious target, far north of what is in the bill, and that we came close to achieving it, but did not actually achieve it. Would there be any advantages to society as a result of taking that pathway and trying to meet the target? Would we have sent out any positive signals to business or innovators?

Roseanna Cunningham: I would need to know what you were talking about in terms of getting there. Presently, we do not have a pathway. I remind everybody that the Committee on Climate Change’s advice is that 90 per cent is at the very “limits of feasibility”. I very much hope that nobody here thinks that a Government should act in a way that is not feasible. We are asking the Committee on Climate Change to update its advice two years down the line and consider whether it thinks that there is a feasible way of doing it. If there is, we will do it that way.

Mark Ruskell: Do you see any feedback in terms of innovation? By setting a net zero target, you would send out a signal for those who want to innovate—

Roseanna Cunningham: Innovation is happening across the board now and the target sits at 80 per cent. I am not sure that an argument about this particular target will necessarily drive innovation any faster than it is already being driven.

Mark Ruskell: Why was achievability not a major factor in the 2009 bill, but it is in this bill?

Roseanna Cunningham: I am sure that it was a major factor in the discussions at the time. The reality is that, as part of the 2009 bill, there was a lot of discussion about targets. I seem to remember—I may be wrong because I did not do the 2009 bill—there being a choice of two targets and that we went for the higher target.

Sara Grainger: The term “achievable” is in the 2009 act.

Roseanna Cunningham: There you go. At the end of the day, achievability ought not to have to be in legislation. Are we seriously arguing that a Government and a Parliament should be legislating on things that they do not think are achievable? That would be an astonishing position to be in. Achievability ought to underpin just about everything that we do without having to be legislated for.

Achievability was part of the discussion in relation to the 2009 act and it is a discussion now. That discussion is driven by the advice that we have had that, at the moment, the net zero target is not achievable because a pathway to it cannot be seen. That is why we are having the discussion in the terms that we are.

Every piece of Government legislation and every Government policy has to be predicated on achievability. It is not a game.

Mark Ruskell: It is physically impossible to meet a net zero target.

Roseanna Cunningham: No. You can go on twisting my words if you want, but you know perfectly well that that is not what I am saying.

Mark Ruskell: It was a question.

Claudia Beamish: It was a question.

The Convener: I will come in here. A couple of people from whom we have heard, including Lord Deben and, I think, Andy Kerr from ClimateXChange, warned against or were critical of other Governments that have been virtue signalling. If you put out something and say that you will do X, but, as you say, you are not looking behind that at what is achievable, what impact could that have?

Roseanna Cunningham: I cannot speak for everybody's targets and policy statements. All that I can keep saying is that a lot of Governments make high-level calls, but they are not legislating or being held to account for them; in many cases, they will certainly not be held to account in the next 10, 15 or 20 years. A lot of expectation is loaded into a presumption that somewhere around 2035 or 2040 we will have amazing technological changes that will make all this doable.

In the circumstances in which that does not come through, the difficulty and danger is that ordinary people and businesses will default to saying, "What is the point of this, if it is not achievable?" I would rather talk in terms of achievability, credibility and realistic expectations—as we are doing—and push further only when we know that everything is locked into place. If the UK Committee on Climate Change advises us that a net zero target is now feasible, in March, April, May or whenever, we will do it. We may be talking about the difference between where the Government is currently with legislation and where it might choose to make amendments in just a few months' time. We are in danger of angels dancing on the head of a pin.

Stewart Stevenson: Is achievability also about avoiding things that will not contribute to achievability? I go back to the Northern Ireland renewable heat initiative, which has made things worse for climate change and cost £0.5 billion. When we conclude whether something is achievable, we have to look at the risks—if they are serious, the danger if the thing is not achieved is that it will waste money and take us in the wrong direction.

Roseanna Cunningham: Indeed, and we have had conversations this morning around that. To a

certain extent, we have to be able to make the best decision that we can with the evidence that we have. We cannot foresee the unforeseeable. I do not know whether the renewable heat initiative in Northern Ireland was specifically targeted to climate change emissions reductions. I guess that they thought reductions would be a good benefit from it, but it is an example of what can happen if something goes badly wrong.

On the other hand, we have to avoid the danger of paralysis in some areas. We will continually have to make decisions about a balance of advantage and disadvantage, and there is absolutely no doubt that we have to go forward. We could end up in paralysis if all we do is constantly look at risks—they are in almost everything that we do, because everything that we do in life carries risk. The issue is about best evidence, realism, credibility and making decisions that can be justified; if there are disadvantages, they can be worked off against the advantages and balanced in that way.

Angus MacDonald: I will go back to use of carbon credits. Under what circumstances might they be used, for example, to achieve net zero? Given that their availability and cost are likely to be prohibitive from the 2040s onwards, why is their use being retained?

Roseanna Cunningham: I cannot imagine that carbon credits will ever be used and the bill in effect establishes a new default position, such that we cannot use credits to help to meet a target. However, if in the future it were to be thought that credits should be allowed, we would have to go back to Parliament and go through a process in order for that to happen. We are not really expecting that. Under the bill, credits could not be used to meet targets without our introducing a statutory instrument that would be subject to affirmative procedure.

Even with a non-zero limit, credits cannot represent more than 20 per cent of a year-on-year change in emissions—but the cost rules that out, from Scotland's perspective. If we were to use credits to make up the gap, particularly with the net zero emissions target to which we do not yet have a pathway, we would be talking about £15 billion over the period to 2050. Our Scottish budget could not possibly support that, and the money would have to be found from right across the Scottish Government.

I do not see the point of carbon credits. The question goes back to the decision about offshoring: we would, in effect, just be letting somebody else reduce emissions on our behalf. We would be banking the good feeling from having achieved our targets without having done anything at all for global emissions reductions. Carbon credits are a bit of a red herring in all this.

Angus MacDonald: I will continue on that re-herring theme. You mentioned the 20 per cent limit. How was that decided on? What analysis was done to arrive at that figure?

Roseanna Cunningham: You will need to ask the Labour Party that question because it was a Labour amendment to the 2009 legislation that introduced that. I am not sure what the thinking was. In fairness, I note that I do not think that Claudia Beamish was here, then.

Claudia Beamish: No.

Roseanna Cunningham: I suspect that we accepted the amendment in the spirit of trying to give something. There was no detailed Government analysis, although there was a determination not to use the limit, so accepting the amendment would not have been an issue.

Angus MacDonald: On inventory revisions, we had a response from the bill team a while back that said that

“a fundamental change in the scope of future inventories”

is expected due to the incorporation of

“new emission factors and categories of peatland condition”

being

“likely to substantially increase emissions from LULUCF in Scotland.”

Will inventory revisions make targets easier or harder to meet? For example, by how much will inclusion of peatland emissions increase emissions from the LULUCF sector? What has been done to mitigate those emissions?

Roseanna Cunningham: Inventory revisions are completely out of our control because they are driven by changes in the science and in measurement. They can help in one year and hinder in another. They are quite volatile, which is one of the reasons why quite a lot of countries do not include LULUCF in their emissions stats. The decision was made in Scotland to include inventory revisions, but that means that we are subject to that volatility, which can be year on year.

We know that some major revisions are coming down the track. We have not seen the detail, however: I understand that the UK Government has a report that it is not sharing it with us, although we know that it will be pretty significant.

The revisions are a particular issue for us because we have our annual targets. Revisions can have different impacts from year to year, so we are, for that reason, not proposing to change our annual targets. However, we must have a way of managing inventory revisions.

About 18 months ago, there was a period when we thought that the bill would end up being

subsumed by the argument about inventory revisions, but the work that we have done with stakeholders and everybody else behind the scenes to bottom out the impacts has meant that we have come to what we consider to be a reasonable conclusion.

There is a lot of uncertainty about the amount that we are talking about and—as I said—we have not seen the detail of the UK Government report. Scotland has about two thirds of the UK’s peatlands, but accounts for only about one third of peatland emissions. We think that the impact on Scotland could be about 6 megatonnes of CO₂, which is about 10 per cent of the inventory. That would increase emissions by 4 to 5 percentage points. You can see that the impact will be quite significant if we do not manage emissions better.

We must remember that this is nothing to do with domestic effort. The inventory revisions result from changes in measurements, in the science and in understanding. That will continue to be the case, particularly in the LULUCF sector. There was a year when we benefited from inventory revisions relating to forestry because a way was found of counting smaller parts of woodland cover than had originally been included in the statistics. That was a measurement change as opposed to a science change—although, I suppose, measurement is also science. That all happens at a level way above us.

11:15

Mark Ruskell: Further to that, is work being done on how we measure emissions from agriculture? Obviously there are, other than production, many things that agricultural holdings do, including renewable energy production and agroforestry. Will they address the difficulties that agriculture has in reducing its emissions to zero, which we talked about earlier?

Roseanna Cunningham: It is fair to say that there is a bit of a grumble in the agriculture sector about the fact that it does not get credit for many of the things that it is doing because those achievements are assigned to other sectors. We need to acknowledge that farmers do much more than appears to be the case. Work is on-going in the industry and the scientific community on the potential for reducing emissions in agriculture, and we are talking to the sector about how we might better reflect its achievements. There is a conversation to be had about what we can do better in the food-production side, but there is also a question about how we assign emissions reductions sector by sector.

Sara Grainger: Exactly. It is difficult to look at the inventory and say who is responsible for which emissions reduction in which sector. An error that

people commonly, and understandably, make is to think that the statistics on the agriculture sector reflect everything that farmers do. There is a big difference between everything else that farmers do and agriculture: they do an awful lot to reduce emissions that is captured in other sectors—for example, power generation, which is all captured in the inventory but not under the agriculture heading. Perhaps when we talk about the statistics, we need to make it clear that “agriculture” does not mean everything that farmers and landowners do.

Roseanna Cunningham: We should remember that we are using an international set of standards for greenhouse gas emissions, and what we count for agriculture is part of that. There is perhaps an opportunity for us, even though it is not part of the greenhouse gas statistics every year, to do a calculation that shows what agriculture is delivering, on the understanding that that cannot be used as a replacement for what appears in the greenhouse gas emissions stats, which measure a very specific thing, as opposed to wider matters.

Agriculture is not the only sector that is affected in that way. The building sector is similarly affected: some of the work that it does will be assigned to the energy sector rather than to the building sector. The situation is not straightforward in any sector.

Finlay Carson: We have touched on the fact that peatlands and agriculture have important parts to play. I would like to get something on the record in that regard. We know that climate change has no national boundaries. How are you engaging with the UK Government on how the whole UK can make advances?

Roseanna Cunningham: I try to engage as much as possible, but sometimes that is a little one-sided.

John Scott: I have a series of questions on the TIMES model and the cost estimate of £13 billion in the financial memorandum.

Roseanna Cunningham: This is the science bit.

John Scott: This is the actuality bit.

Emissions pathways in non-energy sectors, including land-use change, waste and parts of agriculture, were not updated in moving from an 80 per cent target to a 90 per cent target in the TIMES modelling. Why were those emissions pathways not updated?

Roseanna Cunningham: The short answer is that we considered those areas to be already at a point at which we could not see a pathway beyond that. That is not to say that the position will not change in the future. However, at present we feel that if we were to update the pathways further, we

would be out in a canoe without paddles. When it comes to doing the TIMES modelling runs, that would not make sense.

Simon Fuller might want to expand on my very non-scientific answer.

Simon Fuller (Scottish Government): Absolutely. In the TIMES framework and the associated modelling, we try to look at the lowest-cost option for moving from 80 per cent to 90 per cent reduction. Although there are options for increasing emissions reductions in all sectors, the most cost-effective way to proceed that we could identify was to focus primarily on industry, surface transport and, to an extent, buildings and property. That is the basis on which the modelling that fed into the financial memorandum was done.

John Scott: I see.

As far as confidence in the estimated cost of £13 billion is concerned, we have a variety of figures in front of us, which, to be frank, I do not fully understand. The cost of achieving a 90 per cent reduction is said to be £13 billion, but that figure is unadjusted for inflation. If the cost is adjusted for inflation, it goes up to £25 billion. If the figure is adjusted for inflation and the impact of discounting is removed, the estimated cost of moving to a 90 per cent target is £59 billion. Which figure should we use? I appreciate that Mr Fuller says that we are trying to achieve the least-cost way of getting to where we want to be, and I fully support that. However, there is a huge range of figures out there, and I would welcome an explanation of what they mean, how they work and how we got to them.

Simon Fuller: The easiest way to do it might be to start with the highest figure and work back. The £59 billion would be the cash outlay—the amount of money that would have to go out the door. We have the figures that are adjusted for inflation and discounting because the cash outlays will occur over a 32-year period. When we spend £1 billion in 2050, the real cost of that is less than £1 billion in today's prices, because there will be inflation and economic growth in the intervening period. More generally, spending money in the future is easier than spending money today.

The £25 billion figure takes into account the discounting that factors in future economic growth, which obviously affects the affordability of policies. The idea of discounting is standard practice when costs are looked at over a longer timeframe. The discount rates and assumptions that we use are taken from the Treasury's green book appraisal guidance, which sets out standard assumptions that should be used when discounting over future years.

The final adjustment that we make is for inflation over a 32-year period, which is quite substantial.

We want to strip out the effect of inflation. That leaves us with a figure that provides the most realistic expression of what the cost would be when it is thought about in today's prices.

John Scott: I would not go so far as to call that "sophistry", but it sounds like a wonderful way of dressing up the fact that achieving the target will cost £59 billion even if, at today's prices, it is only £13 billion.

Roseanna Cunningham: Hang on—it is a little unfair to use the term "sophistry" when we are applying a standard practice that all Governments in the UK use. We are not departing from what is considered to be the appropriate way of calculating the cost. To a degree, there has to be built-in uncertainty, because we cannot know for certain. What we are trying to do is use all the tools we have that are understood to be robust. They are the Treasury's way of calculating costs, so if you are calling it "sophistry", in effect you are also accusing your own party's Government of that.

John Scott: I submit. I give in, cabinet secretary. [*Laughter.*]

Roseanna Cunningham: All that we are doing is what is considered to be established practice. I agree that, although it is sophisticated guesswork, it is guesswork.

John Scott: I will go back to the questions. We should then have absolute confidence, or as much as we can have with all the caveats that the cabinet secretary gave, in the £13 billion figure. From what I have read, the TIMES model has 2,000 variables, and each of those has four different variables, so there are about 8,000 variables. In terms of probability theory, I do not know how that holds together. It must be very sophisticated mathematics to provide absolute confidence in the predictions, with so many variables.

Roseanna Cunningham: I do not think that anybody can have absolute confidence—"absolute" is not a word I would use here. We can have reasonable confidence on the basis of what we are doing and saying now that, to the best of our knowledge, those figures are appropriate. I cannot say for sure that, in 20, 30 or 40 years, people will not be sitting here laughing about that. Everything has to be done on the basis of our best understanding right now, using the appropriate methods that are mandated for use across the whole of the UK, in order to achieve the results. That is the best that I can say, folks.

John Scott: I think that that is all for me to ask—oh gosh, there is more over the page.

Does the £13 billion include consideration of the potential social, economic and environmental

benefits of climate mitigation policies, such as benefits to health or biodiversity?

Roseanna Cunningham: No. As I understand it, we have not tried to calculate that side of the equation. I have made the point that there will be other benefits. They might not all be easily quantifiable, but they do exist. There is also an economic benefit. Mark Ruskell asked questions earlier about that. Clearly, there is an economic benefit from the technological change and innovation that is happening and will continue to happen. The last time that we looked at that, it was something like \$29 trillion.

Sara Grainger: That is the figure that is available globally.

Roseanna Cunningham: It is available globally. It would be a bit much to expect that to be available in Scotland.

John Scott: I would think so.

Roseanna Cunningham: That figure is no more quantifiable than the other elements. I do not know what the calculation is, but there is a figure and people are thinking about the potential benefits. We have to produce the potential costs. We have done that in the best way we can.

John Scott: Have you done any analysis on the risks and cost benefits of actions to mitigate climate change at different rates from the ones that are proposed?

Sara Grainger: In arriving at the proposal for a 90 per cent target, we conducted a range of impact assessments on the difference between the current target of 80 per cent and a 90 per cent target. I will not list them, but there was a good handful. We set out various costs, benefits and risks. On the difference between the 90 per cent target and the net zero target, we set out as best we could in the analysis paper that we published alongside the bill what we thought the risks and the different ways to achieve the target were.

To summarise briefly, the primary benefits of tackling climate change as quickly as is feasible include being at the forefront of the global shift to carbon neutrality and getting a good share of the figure for technological change and innovation that the cabinet secretary mentioned. As all countries move to carbon neutrality, there will be good markets for those technologies and skills. By being at the forefront, Scotland can capitalise on that very successfully. There are also all the health co-benefits, such as clean air and more active travel.

There are social risks, though, and risks around interactions with other policies. For example, if we try to go too far too fast, there are risks to fuel poverty. The interaction between reducing emissions and reducing fuel poverty is very finely balanced. If we try to do one too fast, we will

damage the other. That is one of the major risks that we looked at.

11:30

John Scott: Will you explain that a bit more? The Minister for Energy, Connectivity and the Islands, Paul Wheelhouse, said that in a statement last week, but I do not fully understand the risks of moving forward more quickly on the targets and reducing heat loss.

Sara Grainger: Increasing the energy efficiency of a building does not increase greenhouse gas emissions. There is a different kind of risk there, which relates to whether Scotland can get the economic benefits from the supply chain, which I am much less familiar with.

I will oversimplify this but, on the issue of moving to lower use of carbon fuels to heat homes, fossil-fuel heating is currently cheaper than low-carbon heating. If we push really fast to reduce emissions, we will push people to use more expensive fuels, which will increase fuel poverty. The same applies vice versa: if we push quite hard to reduce fuel poverty, more people will use more fuel fossil-fuel heating and emissions will increase. There is a fine balance there, and we have to try to achieve both through a carefully calibrated, steady approach.

John Scott: If I have understood you, you are saying that you expect the cost of fuel that is produced with fewer carbon emissions to come down, which is why you are prepared to wait a little longer to get to that point and push for those improvements.

Sara Grainger: Yes.

The Convener: I am afraid that we have run out of time. I thank the cabinet secretary and her officials for all their evidence this morning.

11:32

Meeting suspended.

11:38

On resuming—

European Union (Withdrawal) Act 2018

Health and Safety (Amendment) (EU Exit) Regulations 2018

The Convener: Agenda item 3 is consideration of a number of requests from the Scottish Government for the committee to consent to the United Kingdom legislating, under the powers in the European Union (Withdrawal) Act 2018, through a number of UK statutory instruments.

Members will note that the deadline for consent from the Scottish Parliament for the first set of regulations is 28 November, which is tomorrow. Members have no comments on the SI, so is the committee content for the Scottish Government to give its consent to UK ministers to lay the Health and Safety (Amendment) (EU Exit) Regulations 2018 in the UK Parliament?

Members indicated agreement.

The Convener: We will write to the Government, letting it know our decision. Is the committee content to delegate authority to me to sign off that letter?

Members indicated agreement.

Environment (Miscellaneous Amendments) (EU Exit) Regulations 2018

The Convener: Members will note that the deadline for consent from the Scottish Parliament on the regulations is 2 December. Do members have any comments?

Mark Ruskell: I have a brief comment that is more about how the Scottish Government will keep pace with European legislation in the event of Brexit. The notification mentions the provisions of the European environment action plan, which covers a number of areas including biodiversity, air quality, climate change and the circular economy. The question in relation to the SI is about how the Government will use the provisions in either the withdrawal act or the UK Withdrawal from the European Union (Legal Continuity) (Scotland) Bill—whichever we will be operating under—to keep pace with that plan. I realise that my point is slightly separate from the detail of the regulations, but it is related, so can we get clarity from the Scottish Government on how it intends to work with the European environment action plan post-Brexit, and what its workstreams are in that respect?

The Convener: That is a more general question about SIs.

Mark Ruskell: Issues arise from the regulations in respect of how we will keep pace with things as we go forward, and what the Scottish Government's action plan will be for ensuring regulatory alignment, which the Government has committed to.

The Convener: Given that the deadline is 2 December, we will not have time to get a response, but if you will be content, we will include your point in our letter.

Mark Ruskell: If putting the point in a letter to the Scottish Government is the most appropriate way, convener, I would appreciate your doing that.

The Convener: As I said, we will not, however, get a response before the deadline.

There are no other comments, so is the committee content for the Scottish Government to give its consent to UK ministers to lay the regulations in the UK Parliament?

Members indicated agreement.

The Convener: We will write to the Scottish Government and will include Mark Ruskell's points. Is the committee content to delegate authority to me to sign off the letter?

Members indicated agreement.

Floods and Water (Amendments etc) (EU Exit) Regulations 2018

The Convener: Members will note that the deadline for consent from the Scottish Parliament on the regulations is, again, 2 December. Members have no comments, so is the committee content for the Scottish Government to give its consent to UK ministers to lay the regulations in the UK Parliament?

Members indicated agreement.

The Convener: We will also write to the Scottish Government. Is the committee content to delegate authority to me to sign off the letter?

Members indicated agreement.

Justification of Practices for Ionising Radiation, Radioactive Contaminated Land (England) (Northern Ireland) and Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Miscellaneous Amendments) (EU Exit) Regulations 2018

The Convener: Members will note that the deadline for consent from the Scottish Parliament

on the regulations is 6 December. Do members have any comments?

Mark Ruskell: In relation to post-withdrawal environmental governance in this area, obviously we have testing, standards and so on, but there is a question about who polices the Government. The briefing material that we have received suggests that there is still uncertainty about the post-Brexit environmental governance arrangements. I know that the issue has been raised before in the committee. Is there an opportunity to seek clarification on whether there is more certainty as a result of discussions between the Scottish Government and the UK Government on what overall governance will look like after 29 March 2019?

The Convener: The clerks have advised me that the relevant cabinet secretaries will be coming before the committee, so we can ask them that question in public. However, we will also include Mark Ruskell's question in our letter. We have raised the issue before. I think that we will get an update on how the two Governments are working together and co-ordinating things. We can add that to the questions that we will ask the cabinet secretaries next week.

Mark Ruskell: The briefing material on the regulations mentions the nuclear co-operation agreements between states; it would be useful to get clarity on the agreements that we have at the moment—in particular, agreements with Australia on disposal and treatment of civil nuclear waste.

The Convener: Is everyone happy for that to go into our letter?

Members indicated agreement.

The Convener: Is the committee content for the Scottish Government to give its consent for UK ministers to lay the Justification of Practices for Ionising Radiation, Radioactive Contaminated Land (England) (Northern Ireland) and Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Miscellaneous Amendments) (EU Exit) Regulations 2018 in the UK Parliament?

Members indicated agreement.

11:45

The Convener: We will write to the Scottish Government. Is the committee happy to delegate authority to me to sign off that letter?

Members indicated agreement.

Leghold Trap (Amendment etc) (EU Exit) Regulations 2018

The Convener: The final instrument is the Leghold Trap (Amendment etc) (EU Exit)

Regulations 2018. Members will note that the deadline for consent from the Scottish Parliament is 10 December. As there are no comments from members, is the committee content for the Scottish Government to give its consent to UK ministers to lay the regulations in the UK Parliament?

Members *indicated agreement.*

The Convener: We will write to the Scottish Government. Is the committee content to delegate authority to me to sign off that letter?

Members *indicated agreement.*

Subordinate Legislation

Environmental Noise (Scotland) Amendment Regulations 2018 (SSI 2018/342)

11:45

The Convener: Agenda item 4 is subordinate legislation. First, the committee will consider the Environmental Noise (Scotland) Amendment Regulations 2018 (SSI 2018/342). Do members have any comments on the regulations?

Mark Ruskell: I seek clarity about how the regulations relate to assessment of aviation flight-path changes and the consultative and regulatory approach to dealing with them. Obviously, we do not have officials with us, so I am not sure what is the best way to seek clarification. Stewart Stevenson has his pen up, so he probably has the answer.

The Convener: We will have to send a letter expressing those concerns.

Stewart Stevenson: That is laid out in annex A of paper 5 under "Policy Objectives", which refers to maps that

"estimate people's exposure to noise from road, rail and aviation".

The regulations therefore clearly address noise. Of course, the regulations merely replace existing secondary legislation that came in in 2006 that does the same. In that sense, the regulations cover aviation in the same way as the previous secondary legislation did.

Mark Ruskell: To clarify my point, I say that I accept that the regulations cover aviation, but my question then is about how the regulations relate to the processes that have been established by the Civil Aviation Authority regarding assessing changes in flight paths, and whether the regulations will influence those processes directly or make substantive changes to the way in which they are undertaken. It is a live issue at the moment, particularly in relation to Edinburgh airport and the standards of assessment and consultation that the airport is having to go through under the auspices of the CAA in order to provide information about noise and to consult communities. Will the regulations influence that and how noise is dealt with under the current regime?

The Convener: Okay. We will write to the Government about that and ensure that you are content that the letter reflects your comments.

Does the committee agree that we do not want to make any recommendations on the regulations

but will put Mark Ruskell's question in a letter to the Government to get clarity?

Members *indicated agreement.*

The Convener: The committee will now move into private session, so I request that the gallery be vacated. Following agenda item 5, the committee will suspend and reconvene at 2.30 pm in public to hear evidence from Scottish Government officials on a proposal by the Scottish Government to consent to the UK Government legislating using the powers under the European Union (Withdrawal) Act 2018 in relation to the Storage of Carbon Dioxide (Amendment) (EU Exit) Regulations 2018.

11:49

Meeting continued in private until 12:46.

12:46

Meeting suspended.

14:31

On resuming—

European Union (Withdrawal) Act 2018

Storage of Carbon Dioxide (Amendment) (EU Exit) Regulations 2018

The Convener: Welcome back. The sixth agenda item is to consider a proposal by the Scottish Government to consent to the UK Government legislating using the powers under the European Union (Withdrawal) Act 2018 in relation to the Storage of Carbon Dioxide (Amendment) (EU Exit) Regulations 2018. We are joined by Stuart McKay, the head of carbon capture, utilisation and storage for the Scottish Government. Thank you for coming along to answer our questions.

My first question is about the timing of the committee's receipt of the notification. It was sent on Thursday 22 November, with the expectation that the statutory instrument would be laid at Westminster a week later, on 29 November. Why do you think that so little time has been given to Parliament to consider the notification?

Stuart McKay (Scottish Government): Thank you for inviting me to speak. We received the notification from the UK Government on 6 November, which is outside the 28-day period to begin with. I went through the usual processes. I had to consult the Scottish Government legal department and other policy officials and eventually get the notification through to the minister. That is why it was very late in getting to the committee.

The Convener: What discussions did the Scottish Government have with the Department for Business, Energy and Industrial Strategy on the scope to lay the SI on 29 November, given that we now have a very short period in which to scrutinise it?

Stuart McKay: We have sent a holding response to the UK Government to convey the message that the timing is challenging and not ideal.

The Convener: Did the UK Government give you any idea why it sees this SI as particularly urgent?

Stuart McKay: I think that it is because of the acceleration in the relevant policy area on the part of the UK Government. I sent an update to the committee that sets out the UK Government activity that has happened in the past 12 months.

The Convener: The correspondence that we received did not indicate whether the draft SI had

been shared with the Scottish Government by the UK Government. Has it?

Stuart McKay: We have not got the draft SI yet.

The Convener: So, like us, you have not seen its content.

Stuart McKay: Can I just correct that? We have the draft SI and we have been consulted on that over the past few weeks, but we do not have the final SI. That is what I meant to say—apologies.

John Scott: Are you content with the drafting that you have seen thus far?

Stuart McKay: Yes. It appears to be a minor technical change, rather than anything else. Our legal department is also satisfied.

Angus MacDonald: The SI has been classified as category A, but the notification indicates that the SI would transfer power to the UK secretary of state. I am keen to know the reasons for classifying it as category A rather than category B, given that it creates new powers for the UK secretary of state.

Stuart McKay: The instrument makes some minor changes of a technical nature. Part of the legislation means that the UK Government has to consult the European Commission about technical requirements. The changes in the instrument give the secretary of state power to modify technical requirements.

Where it affects the Scottish Government is to do with the pipelines. If the pipelines cross the Scottish Government's 12-nautical-mile limit, there is an interaction with the Scottish ministers, and because those pipelines will naturally come from onshore—in Scotland, in this case—to offshore, crossing the 12-nautical-mile limit into the UK continental shelf, they straddle the boundary. In the process of accessing those pipelines and in the termination and decommissioning of the pipelines at the eventual end of their life, there will naturally be an interaction with the Scottish Government.

That is where the two things meet, but it does not affect the Scottish Government's licensing capability or competence, because we also have licensing powers for carbon capture and storage. However, the instrument refers to licensing CCS activities within the 12 nautical miles of the territorial seas of Scotland. Because pipelines go across those boundaries, there will always be that interaction.

The Convener: You say that there will be an interaction. What kind of interaction? Is it a case of permissions or of agreement?

Stuart McKay: It would be consultation on decommissioning in a certain way, to ensure that the Scottish ministers are content with it, and it

would be agreement on that. There would also be interaction on access and maintenance.

Angus MacDonald: I appreciate the clarification, but given that there is what I would consider a complexity, I would have thought that the instrument should be category B.

Stuart McKay: I think that it is just because of the minor changes, from consulting the European Commission to consulting the secretary of state in the UK Government. Because it crosses boundaries between the 12-nautical-mile limit and the UK continental shelf, CCS has always been dealt with by the agreement of both Governments.

Angus MacDonald: I get that. Thank you.

John Scott: Notwithstanding your answers to Angus MacDonald, I would like to ask something for the record. You may already have answered some of these questions, but what impact does the proposed statutory instrument have on devolved areas and what are the practical implications?

Stuart McKay: It does not really have any impact, to be honest. As I say, the pipelines are always dealt with by agreement, because they cross boundaries, so both Governments' agreement is required in order to consent, in order to gain access and in order to terminate and decommission, depending on what part of the sea the activity is taking place in. As I said, it does not affect the Scottish ministers' competencies in licensing CCS within their own jurisdiction.

John Scott: Does the function of legislating to amend certain technical requirements in areas where the Oil and Gas Authority is the licensing authority impact in any way on devolved areas, in addition to the ways that you have already mentioned?

Stuart McKay: We do not believe so. There is reference to updating the legislation as a result of technological innovations and other technical matters. The reference states that you would look to the European Commission to update the legislation. That will change because of the regulations; you would look to the UK Government and the Scottish Government to update those technical terms, wherever that is relevant.

John Scott: Does the Scottish Government anticipate having a role in the exercise of that power? For example, does it expect to be consulted on changes to UK technical requirements, which are currently set out in the CCS directive? I take it that the answer to that is yes.

Stuart McKay: The answer is yes. We have consulted with the UK Government on the issue throughout the years.

John Scott: Is it the Scottish ministers' intention to have an equivalent power to modify technical requirements in the territorial sea adjacent to Scotland? If so, how does the Scottish Government anticipate that the powers will interact in practice?

Stuart McKay: Our intention is to address the same technical issues. That is not a priority—we have other things that need to be done more quickly. There are no live CCS projects involving injecting CO₂ into geological formations, and none is expected for a couple of years at best, so we feel that we have time to address the issue.

Mark Ruskell: The notification states that the regulations also address

“minor EU Exit related amendments”

and

“non-EU Exit related cross-referencing errors.”

In plain speak, what are those?

Stuart McKay: CCS, by its nature, is affected by a number of things. One of them is the emissions trading system, which the committee has discussed. For instance, if there was a live CCS project, it would need an ETS permit. The interaction with the ETS connects CCS in that way.

Mark Ruskell: So that is the purpose of those additional amendments and the correction of cross-referencing errors.

Stuart McKay: Yes. Some of the cross-referencing is to take out references to the European Commission and put in place references to the United Kingdom Government secretary of state.

Mark Ruskell: That leads me neatly on to a couple of questions about CCS and the relationship with the EU ETS and what replaces it. How will the current incentives to avoid carbon leakage on carbon storage sites be replaced in the UK? We will have a carbon taxation mechanism. What is your understanding of how that will work?

Stuart McKay: That is not my exact area, but I will try to help. Whatever replaces the ETS, any CCS project will be part of that and will need a permit from whatever structure is decided on, as will many large industrial projects.

Mark Ruskell: There is still uncertainty about the proposed mechanism and the impact on capturing or reducing emissions.

Stuart McKay: Yes. From my point of view, any CCS project needs a permit for the ETS. If the ETS is replaced by something else, whatever it may be, that will stay the same—CCS projects will still need a permit. There is no intention to change that.

Mark Ruskell: The intention and the effect will be the same.

Stuart McKay: Yes. Whatever the solution is, it will address the CCS issue. There is no intention of changing that. I hope that that is helpful.

14:45

Mark Ruskell: Is CCS leaky? Would you expect projects to use ETS or some other mechanism?

Stuart McKay: It is there as a backstop; I do not want to use that word, but it is the only one that I can think of. It needs to be in place. I do not know whether you are aware of it, but Norway's Sleipnir project has been storing CO₂ in the North Sea for 20 years now without incident. Our geologists have told us that this is the safe thing to do. Moreover, in choosing a store, we would have to characterise the geology on the basis of whether it was suitable or not. There are an awful lot of hurdles to get over before you can say that a site is suitable for this activity.

Finlay Carson: The notification says that the proposed SI

“does not amend the Scottish equivalent to the Licensing Regulations, the Storage of Carbon Dioxide (Licensing etc) (Scotland) Regulations 2011.”

The regulations relate to the licensing of geological storage in Scottish territorial waters and are expected to be amended in due course. I know that you have said that nothing is going to come forward for the next few years, but will not amending the relevant Scottish licensing regulations concurrently have implications for ensuring that there is a cohesive licensing regime?

Stuart McKay: This is a matter of priority. We have chosen to prioritise other things at the moment, but that is definitely on the list of things that need to be done and which definitely need to happen.

Finlay Carson: Do you have any idea when it will happen?

Stuart McKay: I do not have an exact date, but it will happen in due course. The process has already begun.

Finlay Carson: And there are no implications arising from the licensing regulations not being amended concurrently.

Stuart McKay: We do not have any live projects storing CO₂ at the moment. A number of projects are starting to be developed, which is very interesting, but there are no live operational projects at the moment.

The Convener: If members have no other questions, I ask Mr McKay whether he wishes to

raise anything that he might not have covered already.

Stuart McKay: I just want to reiterate that this is a minor technical change and that we are addressing the Scottish part of it separately.

The Convener: Thank you very much for joining us and for your helpful evidence.

That concludes the items on the public part of our agenda. At its next meeting on 4 December, the committee will take evidence from the Cabinet Secretary for Environment, Climate Change and Land Reform and the Cabinet Secretary for the Rural Economy on a number of environmental issues arising from the UK's exit from the European Union.

As previously agreed, the committee will now move into private session.

14:48

Meeting continued in private until 14:53.

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