



The Scottish Parliament
Pàrlamaid na h-Alba

Official Report

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

Tuesday 18 May 2010

Session 3

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TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE
14th Meeting 2010, Session 3

CONVENER

*Patrick Harvie (Glasgow) (Green)

DEPUTY CONVENER

*Cathy Peattie (Falkirk East) (Lab)

COMMITTEE MEMBERS

*Rob Gibson (Highlands and Islands) (SNP)

*Marlyn Glen (North East Scotland) (Lab)

Charlie Gordon (Glasgow Cathcart) (Lab)

*Alex Johnstone (North East Scotland) (Con)

Alison McInnes (North East Scotland) (LD)

*Shirley-Anne Somerville (Lothians) (SNP)

COMMITTEE SUBSTITUTES

Alasdair Allan (Western Isles) (SNP)

Murdo Fraser (Mid Scotland and Fife) (Con)

*David Stewart (Highlands and Islands) (Lab)

*Jim Tolson (Dunfermline West) (LD)

*attended

THE FOLLOWING GAVE EVIDENCE:

Liam Kelly (Scottish Government Energy Directorate)

John Mason (Scottish Government Business Directorate)

Drew McFarlane (Scottish Government Energy Directorate)

Stewart Stevenson (Minister for Transport, Infrastructure and Climate Change)

CLERK TO THE COMMITTEE

Steve Farrell

LOCATION

Committee Room 2

Scottish Parliament

Transport, Infrastructure and Climate Change Committee

Tuesday 18 May 2010

[The Convener opened the meeting at 14:00]

Subordinate Legislation

Carbon Accounting Scheme (Scotland) Regulations 2010 (Draft)

Climate Change (Annual Targets) (Scotland) Order 2010 (Draft)

Climate Change (International Aviation and Shipping) (Scotland) Order 2010 (Draft)

Climate Change (Limit on Carbon Units) (Scotland) Order 2010 (Draft)

The Convener (Patrick Harvie): Good afternoon. I welcome everyone to the 14th meeting of the Transport, Infrastructure and Climate Change Committee this year. I remind members, witnesses and everyone else present that mobile devices should be switched off.

I record apologies from Charlie Gordon and Alison McInnes. I welcome David Stewart and Jim Tolson as committee substitutes and thank them for joining us.

As members have been informed, the representatives who were due to give evidence in our second evidence session are not able to attend. We will postpone that evidence session and seek to reschedule it for a meeting in the near future.

Item 1 is subordinate legislation. We have a group of Scottish statutory instruments on climate change to consider. Members are familiar with the format: we will take evidence from the minister and his colleagues, and we will then move to the formal consideration of the instruments and vote on them one at a time.

I welcome Stewart Stevenson, Minister for Transport, Infrastructure and Climate Change. He is joined by Scottish Government officials John Mason, director of business; Drew McFarlane, team leader, climate change acts implementation team; Liam Kelly, policy adviser, climate change policy team, climate change division; and Andy Crawley, lawyer in the legal directorate.

The instruments are under the affirmative procedure, so the Parliament is required to vote on them before any provisions come into force.

Would you like to make any brief opening remarks before we begin the formal questioning?

The Minister for Transport, Infrastructure and Climate Change (Stewart Stevenson): I will make some exceptionally brief remarks. We should remind ourselves of the obvious: we are setting high levels of ambition, not least the annual targets that will lead to a 42 per cent reduction in emissions, including in international aviation and shipping, by 2020.

It is clear that we are in a substantially tight fiscal position. Everyone in Scotland has to play a part in ensuring that we develop a low-carbon economy. In case people wonder why John Mason is here as director of business, I point out that he was until very recently director for climate change and is making a special reprise appearance before the committee.

The Convener: It is always nice to have a familiar face back again.

John Mason (Scottish Government Business Directorate): Thank you.

The Convener: How much contact did the Scottish Government or its agencies have with the United Kingdom Committee on Climate Change during the formulation of the UK committee's advice? Did the Scottish Government or its officials encourage the UK committee to engage with stakeholders in the Scottish sphere, or with other agencies and sources of expertise that it might have drawn on?

Stewart Stevenson: I make a distinction between stakeholders and sources of information. The UK Committee on Climate Change seeks to remain in touch with what is going on in scientific research and understanding on climate change; to take the questions that are put to it by the UK Government and the devolved Administrations, including the Scottish Government; to research the science that touches on the matters that are contained in the questions from Government; and to deliver an analysis that answers those questions. In doing that, as David Kennedy said in his evidence to the committee, the Committee on Climate Change draws on a wide range of resources in different sectors, including the power sector and transport. That has very much been its focus. Dealing directly with stakeholders is a different matter, although it has contact with stakeholders in seeking to ensure that it is aware of all the scientific advice that touches on the questions that Governments put to it.

The Convener: All that seems to be background on the role of the Committee on

Climate Change. I am looking for a sense of how much engagement the Scottish Government had with it and whether you are aware of the work that it has done with others in developing its advice.

Stewart Stevenson: The UK committee draws in the research of others analytically to respond to the questions that the Scottish Government puts before it for answer. Obviously, there is a considerable amount of interchange to ensure that the UK committee properly understands what the Government is asking. There would be little point in spending a large amount of effort to answer what it thought the question was without coming back and cross-checking that the question was well understood, so there is a regular programme of interaction between officials and the UK committee. However, the primary interactions are with sources of scientific information.

The Convener: In the past, the Scottish Government has told us that it is satisfied for the moment that the UK committee has sufficient expertise on the Scottish picture to fulfil the role. Is that still the case?

Stewart Stevenson: Yes. In a limited number of areas, there is science that is specific to Scottish circumstances. An example of something that is more significant to us than to other parts of the UK is peat—the effect on carbon sequestration and, perhaps more fundamentally, the release of carbon dioxide from peatlands if they are ill managed. There are such differences, but essentially there is no distinct Scottish science. The science that the Committee on Climate Change seeks to tap into and use in answering the questions that Governments put to it is science from every corner of the world. There is no monopoly on scientific research, knowledge, analysis or understanding in any one part of the world.

The Convener: However, there will be distinctly Scottish economic or demographic information that informs the work. Is the UK committee providing relevant and specific Scottish information, given those factors?

Stewart Stevenson: Yes, it most certainly is. It has used Cambridge Econometrics to get information on the Scottish non-traded emissions account; it has used the Scottish Agricultural College to obtain information on abatement potential in agriculture; and Government analysts have provided it with a great deal of information. In answering the specifically Scottish questions, it has taken proper steps to ensure that it has information that is specific to the context of the questions that we ask, which is of course Scotland, its economy and its ecology.

The Convener: As I understand it, the Government could have chosen to have a formal

public consultation on the instruments. Why was the decision made not to do that?

Stewart Stevenson: The Parliament made decisions on the timescales for the instruments to be laid. They have to be laid by the beginning of June. The advice from the Committee on Climate Change was provided quite rapidly, but on a timetable that did not permit that sort of engagement.

The Convener: I have a final question on the timescale. What does the Government intend to do if the Parliament disagrees with any of the instruments? On what timescale will it bring back the same or a revised instrument and ask the Parliament to accept it?

Stewart Stevenson: I hope and believe that the committee and Parliament will support the instruments that we have laid.

The Convener: I am sure that you do. I am asking about the Government's intended timescale if that does not happen.

Stewart Stevenson: I hope and believe that the committee and Parliament will agree the instruments that have been laid.

The Convener: You are not able or willing to say what the Government's intention is if that does not happen.

Stewart Stevenson: I hope and believe that the committee and the Parliament will agree the instruments that have been laid.

The Convener: That is a no, then.

I have a final question before we move on to questions from other members. The recommendation from the Committee on Climate Change not to revise the 42 per cent target is one of the least controversial aspects and no one raised any serious objections to it in previous evidence-taking sessions. Will you set out for the record the Government's rationale for accepting the recommendation to stick with the 42 per cent target?

Stewart Stevenson: I agree that there is no evidence of members of the Parliament or this committee expressing any discomfort about our sticking with the 42 per cent target. There has been more debate on the subject in wider Scotland, but it is clear to us that, if we are to contain temperature rises around the world at levels at which we do not have irreversible change, we must make every effort to deliver on the 42 per cent target. The Committee on Climate Change advised us that reaching the target is possible but challenging and, in that context, we believed that it is entirely appropriate to rise to that challenge and stick with the 42 per cent. I suspect

that you asked me something else, but it has slipped from my mind.

The Convener: No, that is fine; you have covered it.

Cathy Peattie (Falkirk East) (Lab): Good afternoon. The 2020 delivery group said to this committee that the targets

“present a curious picture where a reduction target may be set which is greater than the existing levels of emissions”.

Advice from the Committee on Climate Change and the Scottish Government’s proposed targets seem to build in a degree of latitude to reflect an expected rise in emissions as the country leaves recession. Will the minister explain the thinking behind that and give us an idea of the emissions trajectory that the Government anticipates over the next couple of years?

Stewart Stevenson: Your question refers to a complex set of interlocking elements. The CCC has given us a projection that takes the account that it was able to take—that is a necessarily qualified statement—of the effect on emissions that derives from the economic downturn. It is not clear to that committee, my officials, me or anybody what the exact effect is of the economic downturn, nor is it clear exactly to what levels greenhouse gas emissions will move at the end of the economic downturn, which we anticipate will happen at some point. There is some uncertainty around that subject. Given that the downturn makes a significant contribution to changing emissions figures, it is likely to hide some other effects because it is quite a big effect in itself.

Some other long-term effects are embedded in the numbers. Tree planting is currently running at about 2,000 hectares a year, but we need to get it up to 10,000 hectares a year. There has been a sustained period of relatively low tree planting. The most recent period of significant tree planting was in the 1970s and 1980s. The trees that were planted then are now coming to maturity and are absorbing much less carbon dioxide than before. We are experiencing a reduction in the sequestration of carbon dioxide by our forests as a result of something that did not happen 15 and 20 years ago—in other words, tree planting. Some adverse trends will probably affect us for the next five or so years as we build up tree planting to the required level.

The relatively flatline figure in the early part of our targets takes account of that significant and adverse change in forest sequestration. Although it is already in hand to do something about that, we cannot go back 15 years and change what happened then.

The economic situation is fraught with uncertainty in every possible way, and we are

simply taking the best view that the UK committee has incorporated in its modelling on that front. Have I answered all the member’s questions?

14:15

Cathy Peattie: To a certain extent but, hopefully, it will become clear as I move on.

Stewart Stevenson: I am not trying to avoid answering. It was quite a complex question.

Cathy Peattie: I understand.

As the minister has just said, the Scottish Government wants to encourage Scotland out of recession. What specific policy action is being taken to lock in any emissions reductions that have resulted from the recession, particularly in the non-traded sector?

Stewart Stevenson: In the traded sector—I say that specifically—to a significant extent we are not in control of what happens to the numbers because that is governed by the way in which the traded sector works. However, in 2013 there should be a 9 per cent reduction in that sector because of the expected reduction in allocations. That figure is not yet confirmed; it is the figure that would be our proportionate share of the European reductions. We may find ourselves bearing a higher than proportionate share; we may find that it is lower. There are some uncertainties about the 9 per cent.

There are very substantial industries in the traded sector, such as power generation. We are looking to increase greatly the amount of our electricity that comes from renewable sources and we are looking to other sectors to make shifts to renewable energy. Because that is the traded sector, it does not affect the numbers. However, it creates opportunities in the non-traded sector, particularly after recession—and particularly after changes in the energy mix and the sources of that energy—to reduce the carbon footprint that is associated with transport and with heating our homes and offices. A higher proportion of the energy that we are using comes from renewable sources. That is a key policy initiative that we continue to support through the recession to seek to ensure that, when we return to normal levels of business activity, the carbon footprint that is associated with that business activity is reduced. In large part, that is the biggest thing that we can do to change the carbon costs of using that energy, because it is coming from other sources and, in its own right, has fewer impacts on the environment.

Cathy Peattie: The annual targets for 2011 and 2012 are more ambitious than those advised by the Committee on Climate Change. What policies did that committee not take into account, and what

evidence do you have that those measures will ensure that the 2011 and 2012 targets will be met or surpassed?

Stewart Stevenson: We have gone for 0.5 per cent in each of the later two years. Obviously, we are continuing to take initiatives. A range of policies that we are taking account of now lead us to deviate from the advice of the UK committee. It is a relatively long list, but it includes the energy assistance package and home insulation scheme; the extension of the UK carbon emissions reduction target scheme to 2012; new building standards from 2010 onwards for domestic and non-domestic buildings; the start of the UK renewable heat initiative; the UK roll-out of domestic and non-domestic smart metering; and the UK carbon reduction commitment energy efficiency scheme, which the Parliament voted on a couple of months ago.

There are also some smaller UK policies for energy intensive businesses, including contributions from climate change agreements and the climate change levy. There are also European Union mandatory targets for manufacturers in relation to the average efficiency of new cars and EU directives on the proportion of vehicle fuel that must be made up of biofuels. There is also the Scottish Government's farming for a better climate initiative. We will have to continue to bring forward initiatives, particularly to meet the 2012 target, and we will do that. Some initiatives will be associated with the £10 million of additional spending on sustainable transport that John Swinney announced on 14 April. We will shortly provide a detailed breakdown of how that money will be spent. We will publish the forestry plan and the boiler scrappage scheme shortly. We will also publish the energy efficiency action plan and the zero waste plan during the course of the year, so there is a continuing programme.

This is perhaps the right point at which to make the general point that the targets are targets. We will not be in the slightest bit embarrassed, and I am sure that you will not be disappointed, if we exceed the targets. We will continue to take initiatives as we can to try to exceed the targets where possible.

Cathy Peattie: Obviously, we look forward to those initiatives and you have the committee's support in taking them forward. However, I will ask a little bit more about targets—forgive me, convener—because I am a bit confused. I have looked at the figures in the annual targets order and I am concerned about what seems to be the rounding up of figures. According to the figures taken from the order, and using the sums that are suggested in the papers, it will be 2018 before we get to a 3 per cent reduction. I am worried, because we are looking at 2010, 2011 and 2012

and, although I accept that things take time, 2018 is not within the term of this Government, the next Government or the one after that. Surely the targets that we want to meet need to be a lot more ambitious than that?

Stewart Stevenson: The legislation that we passed requires reductions of at least 3 per cent from 2020 and a 42 per cent reduction by 2020 on the Kyoto baseline—which is mostly 1990 and in some cases 1995. The targets that we have brought forward provide for us to reach that 42 per cent reduction.

Cathy Peattie: How do you achieve that target if you do not start to increase the reductions sooner rather than later? For example, if we look at the figures for 2020, we see that we just reach a 3.34 per cent reduction, but we do not go over the 3 per cent figure until 2017. I am using your figures; I have not produced those figures out of the air.

Stewart Stevenson: I would not seek to challenge my own figures, as that would be somewhat bizarre. The figures that we have provided get us to the 42 per cent reduction by 2020.

Cathy Peattie: Why did you round up the earlier figures? That creates a wee bit of confusion. Your figures seem to be rounded up. The percentages that I have before me are nowhere near what I would have expected you to achieve, given that you are saying that it is a fairly flat line at the start. I can furnish you with those figures and perhaps you can go and look at them.

Stewart Stevenson: No, we are just checking the specific point—we have used the figures that the Committee on Climate Change provided. Remember that they accumulate until we get to 42 per cent. I am just going to be given the figures that we get to. Of course, the rounding works both up and down. When you round to whole numbers, you round up and you round down. Across the piece, it works out and we get to 42 per cent by 2020.

Cathy Peattie: The figures that I have are accurate—neither up nor down—and they still do not meet what is in the annual targets order. I am very disappointed.

Stewart Stevenson: The point is important. I am not sure whether I understand the arithmetic challenge to the figures that are in front of us. I genuinely do not want to leave the subject without trying to understand fully what is being said.

For example, between 2019 and 2020, the targets would reduce emissions by 2 per cent against 1990 and give a year-on-year reduction of 3 per cent, but that is simply an arithmetic function of the way in which reductions accumulate year on

year. A 3 per cent reduction each year is a 3 per cent reduction of a lower figure, so the 3 per cent cannot be translated arithmetically to the difference in the overall reductions against 1990. Without being unduly challenging, I wonder whether that is why we are looking at the figures slightly differently. It is perfectly possible to reconcile the numbers arithmetically.

Cathy Peattie: I take on board what you say, but I think that you are wrong. I am happy to furnish you with the figures.

The Convener: As is not surprising, several members have supplementary questions. I am tempted to allow quite a bit of time for the issue, which is central to the decisions that we will make.

I do not want to pit one set of calculations against another. In general, why should the committee and the Parliament be satisfied with what is proposed, which is a more or less flatline start, although it is a marginal increase on the UK committee's recommendations? We are not at the beginning of the process; we are three years into your Government, which began, rightly, by talking ambitiously about wanting 3 per cent reductions per annum and which said that they were achievable and that the Government's work to achieve them would not wait for climate change legislation to be in place but begin immediately.

Here we are, in the final year of the Government's term, with a suggestion of several years of targets that are lower than the reductions that were achieved before the legislation was in place, when emissions reduced by 1 per cent or so a year. Now, the order says that reductions will flatline. In addition, the more substantial cuts will be delayed not until the tail-end of this Government but until halfway through the next Government's term. Why is that ambitious enough for the committee to accept?

Stewart Stevenson: I return to forestry for an example of the issue. The forestry sequestration rate in 2006 was 10.1 million tonnes of CO₂ equivalent per year, which would fall to 6.7 million tonnes of CO₂ equivalent per year by 2020 without intervention to change the planting rate. That would cause an increase in Scottish net emissions of 3 million tonnes of CO₂ equivalent per year, which is a substantial amount. As I explained, one can make no difference to that quickly. New planting does not provide a CO₂ benefit for at least five years. Just in that line, the effect derives from policy decisions and practice that go right back not even to the preceding Government but to before the Scottish Parliament's resumption. The action to address the issue is in hand. We have made the commitment to step up the planting level to 100,000 hectares per annum—the finance is in place for that.

14:30

John Mason: The figure is 10,000 hectares per annum.

Stewart Stevenson: Quite right. I am sorry, convener—that was the wrong order of magnitude. Finance is in place to increase the level of planting to 10,000 hectares per annum, but there will be a significant lag before we see a significant change in our CO₂ figures in forestry. We are seeing a diminution in carbon sequestration, and it will be some time before forestry starts to make the contribution that we want.

We have been taking action, but that is a perfect illustration of why the suggestion that we can take action now that will make a difference quickly enough to have an impact on the figures for the years immediately in front of us is simply not sustainable.

The Convener: You are arguing that it is impossible to achieve even a continued trajectory from the reductions that were happening before the legislation came into place and that we must slow down our emissions cuts. Is that what you are saying?

Stewart Stevenson: I do not think that I said anything about slowing down our emissions cuts.

The Convener: You seem to be saying that it is impossible to achieve more than the more or less flatline targets that we have for the next few years, which follow a period of relatively consistent emissions cuts of around 1 per cent a year. You are saying that we cannot achieve cuts at that pace any more and that we must slow down our cuts.

Stewart Stevenson: No—we are increasing our emissions cuts.

The Convener: In that case, we should have targets that involve reducing our emissions by more than 1 per cent a year.

Stewart Stevenson: There is a significant latency between a policy intervention and the delivery of the cuts for which it provides. In forestry, for example, the latency is five-plus years. In that key area, there is a significant difficulty related to previous policies and practices over a long period of time, which means that the forests are taking less CO₂ out of the atmosphere. Year on year, that amount is declining.

The Convener: I am sure that you see the political difficulty with the committee approving targets along the proposed lines. The issue came up when we passed the Climate Change (Scotland) Act 2009. We wanted to ensure that each Government would be responsible for delivery during its term of office and for reporting on its record. We did not want a system that would

allow every new Government to say that the previous Government, or the one before that, had not done very well, with the result that it would take it a while to get going. By the time that happens, it will be out of office and the next Government will say that the last lot did not do very much. Is not that the pattern that we are in danger of adopting if we set a target of achieving a 9 per cent cut in emissions halfway through the next term of Government and have more or less flatline targets until then?

Stewart Stevenson: Actions, not politics, determine the numbers. We can politicise to our heart's content. My point is a substantial one—and, by the way, I make it in an environment in which there was unanimity on the issue. It takes me right back to one of the key points that I have articulated throughout my involvement as minister in the climate change debate over the past three years and one day, which is that we must be driven by the science. The moment that we as politicians start to pluck numbers out of the air rather than rely on expert advice that has been driven by the science, we will find ourselves in precisely the position that you describe, which will give politicians of whatever complexion, at whatever time in the future, an excuse to resile from the shared objective that we all have.

We have taken the objective report by the Committee on Climate Change and have looked at the early years in which there is little change in emissions. We have identified a number of policy initiatives, some of which we have already taken and some of which we will take, that have enabled us—following discussion with the Committee on Climate Change—to include in the order a reduction in emissions of 0.5 per cent and a further reduction of 0.5 per cent, which is not the advice that we were given. Therefore, convener, we are doing precisely what you have asked us to do, and we are ensuring that we rely on independent scientific advice, which is free from political considerations, to come up with the numbers, as we go forward and deliver on the figures that will get us to the 42 per cent target by 2020.

Very few initiatives that can be taken in this agenda deliver immediate savings; almost invariably there is latency, although I accept that latency varies from initiative to initiative. It will always be the case that an initiative with which ministers—of whatever complexion—associate an intended carbon saving, cannot immediately be auditably proved to be correct or wrong. The reporting cycle is a couple of years—and that is only reporting on where we are now—and we must allow for the time that it will take the initiative to come into play. For the sake of argument, if we were to take an initiative today that would deliver a benefit in a two-year period, which would be quite

rapid delivery, we would not know for four years whether the initiative had delivered that benefit. That is, of necessity, how the system works.

The Convener: That still leaves open the possibility that a minister—of whatever political persuasion—in the next session of Parliament would tell us that because the present Administration had not done what was necessary, it will be necessary to introduce new policies that also have a latency period, so the 9 per cent reduction would shift from 2013 to 2015 or 2016.

Stewart Stevenson: I can speak only for myself; I clearly cannot speak for future ministers. I assume that there will be ministers after me. I say to you and to the committee that I regard the matter as being extremely important—I hope that people understand that. That is precisely why we have the very substantial list, part of which I read out to the committee, of initiatives that we are taking to ensure that we are able to achieve the sequestration and reduction of CO₂ in the atmosphere and reduction of CO₂ emissions that will enable us to meet the reduction targets of 42 per cent by 2020 and 80 per cent by 2050.

Notwithstanding that I might wish to do so, I cannot speak for future ministers of any political persuasion. However, I can be fairly confident that this committee and its successors will continue to hound and harry ministers in any Administration that does not live up to the aspirations to which we all agreed when we passed the Climate Change (Scotland) Act 2009 in June last year.

Jim Tolson (Dunfermline West) (LD): Cathy Peattie's points about the targets were important and pertinent. In the Government's deliberations, were policy measures considered that would have set in motion an approach that involved more ambitious targets for 2011 and 2012?

Stewart Stevenson: I am not aware of any.

Rob Gibson (Highlands and Islands) (SNP): At last week's meeting I asked Clifton Bain about our ability to reap additional benefits from peat sequestration. From what I can see, in the context of the stretch target for a reduction of 2.2 million tonnes of CO₂ equivalent by 2020, in five years it could be possible for 2.7 million tonnes of CO₂ equivalent to be saved as a result of investment in the maintenance and improvement of existing blanket peat bogs. Could such an initiative be started? Investment now could bring early returns.

Stewart Stevenson: Peat is certainly important in CO₂ sequestration, and consideration of its role in the environment is influencing decisions.

Committee members have probably heard me refer previously to the rejection of the Lewis wind farm proposal. One—not necessarily the only—reason for that was fear of substantial damage to

the peat bogs on which the wind farm would be placed and of release of CO₂. Internationally, peat is not yet included in the inventory, so we have some difficulties. However, we are not ignoring the subject. In November 2009, we held an expert workshop on peat to increase our understanding of current carbon stocks in Scottish peatlands and to produce a list of priorities. At the end of March, Richard Lochhead spoke at the launch of a commission of inquiry into peatlands, so we are engaging with the issue. We are not yet accounting formally for peat, but we are taking the precursor action that will enable us to understand the issue.

One of the double whammies of the climate change agenda is that, as the temperature rises and our climate becomes drier, at least seasonally, the drying out of peatlands will be a significant contributor to release of CO₂. We need to consider how we can ensure that peatlands remain sufficiently moist to retain peat. The moisture and microbial life that the peat bogs contain, as well as the peat, also sequester significant amounts of CO₂. We do not understand fully all of the associated science, but we know that peat is an important holder of carbon dioxide.

Rob Gibson: We understand the international discussions that are under way. What would it take for peat to be included in the inventory?

Stewart Stevenson: The straight but not very helpful answer is that international agreement is needed. Sometimes we think that our decision-making processes could be faster, but they can be as greased lightning compared with international decision making. Peat is now on the agenda, which is encouraging. A decision on the issue is not as hard as some of the other international decisions that may have to be made. For example, the question of what the European target in the traded sector should be is probably more difficult.

We expect that the United Nations Framework Convention on Climate Change conference at Cancún will provide the opportunity for a decision on the issue and will use every opportunity to ensure that people are lined up for that. Next month there is a meeting of the UNFCCC in Bonn—it is called “conference of parties 15 and a half”, or something like that—which will present an opportunity. The UK Government will be there, and we will be represented at official level.

We have a call in to the new Secretary of State for Energy and Climate Change in the UK Government, Chris Huhne, to discuss a wide range of issues. We expect to find that we have substantial areas of agreement. All the indications are that he, in particular, has taken an interest in the subject for a considerable time. The agreement between the two parties in the UK Administration suggests that they think that the

issue is important. I am referring to a much wider question than peat, about which I was asked, but that is the context of what we are doing to promote the inclusion of peat in the inventory.

Rob Gibson: So, it could be helpful if there were agreement within the next five years, during the period in which it is difficult to reduce emissions in other spheres.

Stewart Stevenson: That is correct. There are things that can be done. For example, the changes to the trading scheme that will be implemented in 2013 will give us 9 per cent, which is helpful. The curve will not be absolutely smooth—it will be jaggedy. However, it will average out to deliver the right figure.

14:45

Rob Gibson: Given that the committee needs to have access to as much information as possible when deciding whether to pass the SSIs, will the minister outline how work is progressing on the Government's report on proposals and policies for hitting the 2020 and 2050 targets?

Stewart Stevenson: Work is on-going on the plans and policies report, which we are looking to publish in September. The report requires to be laid before Parliament for a 60-day period of consideration; laying it in June would unfortunately allow only 34 days of consideration because of the summer recess, whereas laying it in September would allow for the greatest number of days outwith recess and therefore for the best possible consideration by Parliament. I believe that my officials are speaking to the committee's officials to ensure the most practical approach to providing the plans and policies report to Parliament and giving it the maximum opportunity to consider the report's contents.

Rob Gibson: With regard to the report's contents, how has the Scottish Government been able to make decisions on emissions targets before it has completed its detailed work on future plans and policies?

Stewart Stevenson: The plans and policies report is about what we have to do ourselves, and the orders that are before the committee are based on the UK Committee on Climate Change's scientific advice. We have shared with that committee information about what we have done and it has identified and put some figures to a range of areas in order to help to steer us towards plans, policies and, for that matter, practices that will give us the best and earliest chance of delivering the reductions in greenhouse gas emissions that we require in order to meet our targets.

That said, it is self-evident that we have to set targets for 2020 and 2050 without necessarily knowing all the steps that we will have to take to meet them. The targets are driven not by knowledge of the detail of everything that requires to be done, but by an understanding of the necessity of doing these things because of the irreversible effects that not going for those targets will have on the environment and the world. The whole thing is driven both ways. It is important to bear that in mind.

Rob Gibson: I suppose that, among many other options that are not yet known in detail, the sequestration of CO₂ in peat might become a much bigger player in all of this.

Stewart Stevenson: Yes—and not only sequestration in peat. The opportunities through sequestration in forestry, the farming programme that we are working on to change farming practice and so on are part of the picture. However, we should not imagine—I do not think that anyone on the committee will—that there is a single magic bullet that will deal with this; every single part of our communities and our activities will have to play its part. That said, it is important to identify key opportunities that we can progress early: peat is certainly one of them.

Rob Gibson: Is the Scottish Government able to reassure the committee that the proposals and policies report will identify the detail of each policy, including timescales and emissions savings, that will be delivered relative to the annual targets?

Stewart Stevenson: That is certainly the case. Last June, we published “Climate Change Delivery Plan: Meeting Scotland’s Statutory Climate Change Targets”, on which the plans and policies report will build. Of course, as one brings forward the individual initiatives that will be described in the report, further detail will, of necessity, emerge. That is just the natural order of things. The detail should be sufficient to enable ministers’ being held accountable for delivery, and for members to see that the claimed benefits of particular interventions are delivered, although I must caution that, of necessity, there is a significant lag with regard to the measurement and accounting processes.

Rob Gibson: Are there any policy areas or data gaps with which the Scottish Government is experiencing difficulties in developing its report?

Stewart Stevenson: There are data gaps, in particular relating to one of the pieces of secondary legislation that are before us today. The Committee on Climate Change has indicated that there is a data and analysis gap in relation to radiative forcing, which means that it is not yet able to recommend a figure that we could bring back at a later stage. Of course, when we bring back that figure, its effect will be retrospective in

terms of the numbers anyway, which is an important point to bear in mind.

It is clear that there are gaps. We do not have as much knowledge as we would like to have on international shipping, for example, or on international aviation in general. However, we are continuing to work on those data gaps and we are seeking international examples. We know, for example, that we are setting the pace in trying to set up the first carbon accounting of any Government in the world, so there will be imperfections in what we bring forward. We must not imagine that everything that we will do will be final and perfect; it will not be. We will have to learn from experience, seek to learn from others and get the scientists to test, measure and report on the things that we do.

Alex Johnstone (North East Scotland) (Con): The committee has already heard evidence that the structure and function of the European emission trading scheme is one of the factors to be considered in setting targets to 2012. How do the workings of that scheme link into the target-setting procedure?

Stewart Stevenson: The targets that we set ourselves derive from three main sources. There are the policy initiatives that we have at our own hands and the actions that we can take for ourselves—that is relatively straightforward—and there are UK Government actions that will deliver savings for our account. Given that what we achieve in Scotland contributes to the UK’s internationally committed targets, I am sure that we will continue to have a good relationship with the UK Government. Whenever the UK Government helps us to deliver on our targets, it contributes to meeting its targets. That is straightforward.

On emissions trading, our most energy-intensive activity in the traded sector is, essentially, power generation and manufacturing. The emission trading scheme, which is currently in phase 2—it will move to phase 3 in 2013—essentially provides credits to companies that participate in the traded sector. The permits will reduce over time. They will reduce by 20 per cent by 2020, but we have always looked for that figure to go to 30 per cent. I will say why. The traded sector throughout Europe will cause a reduction in CO₂ emissions because there will be fewer permits to allow people to emit CO₂, but companies in countries that progress faster than would be the case under the pro rata allocation of permits will, of course, sell off permits to others that are emitting more CO₂ than they have permits for. Therefore, there will be a traded market and a price will be set on carbon.

In Scotland, we are likely to be allocated more permits than we require because we are moving much more rapidly than probably anyone else is to

renewable energy that does not emit lots of CO₂ as part of its production. We will therefore have an excess of credits, which will be sold on. The trouble is that, in bookkeeping terms, our not using those credits and selling them will not alter what is put on the balance sheet. The full allocation of credits, even if we do not need it, will be counted against us. Even selling the credits to someone else will not alter the figures.

It is so important for us that the reduction in CO₂ emissions that is required under the EU emission trading scheme is increased from 20 per cent to 30 per cent because that additional 10 per cent reduction will feed through into our numbers. Otherwise, the targets will be significantly challenging for us. Even if our traded sector had no emissions of carbon dioxide or carbon dioxide equivalent, we would still need to put in the book the cost in carbon terms of those units.

The ETS is a complicated system but, at European level, structuring the system in that way will deliver the greatest pressure to change behaviours among those parts of European heavy industry that emit the most CO₂ pollution. The system will work for Europe, but the effect on us will not necessarily be as useful as it might be.

Alex Johnstone: As that constitutes a comprehensive answer to my second question, that brings me to the end of my questions.

The Convener: In the interests of clarity and of public understanding, without getting into challenging whether the ETS is a credible scheme that will work in the longer term, would not it make some sense for the Scottish Government to publish not only the formal bookkeeping that the minister described but an assessment of what Scotland's emissions actually are?

Stewart Stevenson: Those will be published.

The Convener: When?

Stewart Stevenson: Those figures are already published as part of the carbon emissions for Scotland and they will continue to be published.

The Convener: What do those figures say that is different from the version that includes the ETS units?

Stewart Stevenson: I will invite Liam Kelly to respond to that.

Liam Kelly (Scottish Government Energy Directorate): In essence, the official stats release for each year's emissions present the figures both with and without trading, which shows the difference that trading has on the system. In years when we have not used our whole allocation, there will be a positive association with that, whereas in years when extra allowance has been included, there will be an increase.

The Convener: So there is no typical relationship year by year between those two elements. Does it vary year on year?

Liam Kelly: The publication shows a time series of emissions, both with and without trading.

Stewart Stevenson: Let me just make the point—I will be fairly brief—that, although the emission trading scheme in phase 2 is not yet having a big effect, the costs that are associated with emissions will bear much more heavily in phase 3, so much more in the way of behaviour change might be expected across Europe at that point. One thing that has caused variability is that, with fluctuations in the price of oil and gas, power companies have changed the raw source of the energy that they use for power generation. By changing the cost equation, the emission trading scheme is likely to damp down those fluctuations a bit. In addition, as a greater proportion of our energy comes from renewable sources, those fluctuations will diminish into smaller variations when they are translated into the big picture.

The Convener: Thank you. Jim Tolson will move us on to the next question.

Jim Tolson: My question is on cumulative budgets. I remind the minister and his officials that the Climate Change (Scotland) Act 2009 provides that

“the ‘fair and safe Scottish emissions budget’ is the aggregate amount of net Scottish emissions for the period 2010–2050”.

Given that Stop Climate Chaos believes that

“The annual targets proposed ... for 2010 to 2022 are disappointing ... but these targets must be seen as the minimum level of ambition”,

especially as the targets have not been developed with regard to a cumulative budget, and given that the Scottish Government has known for a while that the UK Committee on Climate Change will not be able to provide information on cumulative budgets until the end of the year at the earliest, what work has the Scottish Government done to estimate the cumulative budget?

15:00

Stewart Stevenson: It is worth making the point that the Committee on Climate Change sought to take into account the effects of accumulations. It is also worth saying that I agree with the comments that the targets should be regarded as a minimum level of ambition. There is no division on that; we always seek to do better.

The issue of the cumulative budget is still complex. Whether we set interim or annual targets, we will try to overachieve, but there are still considerable uncertainties about, for example, our financial budgets. We are facing a new

financial budget from the new UK Administration, so a lot of variables will influence what happens. I am satisfied that we are getting information from the Committee on Climate Change on cumulative budgets as early as it can reasonably provide it. We will share it, and we will respond if the information indicates that we should do so.

Jim Tolson: Given your discussions with the UK Committee on Climate Change, why was it not providing full information on a cumulative budget from an early stage? What pressure did your Government put on it to fulfil properly the duties put on it by the Climate Change (Scotland) Act 2009?

Stewart Stevenson: The 2009 act actually says that we must take account of advice provided by the Committee on Climate Change—I am getting a nod from one of my officials on that—and it provided that. However, we must all accept the qualification that the Committee on Climate Change has to take account of the knowledge that is available to it at the time that it makes its scientific assessments, and I believe that that is what it did.

We are delighted that the Committee on Climate Change has responded to our request and is doing work to improve the quality of information that will be available on the cumulative budget so that we can make further decisions, if necessary, on what our processes, practices and policies should be. We understand that there would be no point in going up to 2020 and then suddenly moving to the target, because all the emissions that should be below the curve would be on the other side. That is why we have set a curve that is in line with what the UK Committee on Climate Change has said—and it took account of the cumulative effects of greenhouse gas emissions in coming up with the curve that it suggested.

Jim Tolson: I am grateful for that answer, but how do you think that the targets might be different if advice on a cumulative budget had been available?

Stewart Stevenson: In the absence of the advice, it is difficult to give an answer to that question that would be in any way helpful. The Committee on Climate Change has taken its view on cumulative emissions based on the information that is currently available. We do not expect it to say that the targets that it has recommended to us will be different after it has done its further work on cumulative emissions, but that work will enable us to understand more clearly the effects of greenhouse gas emissions over the period to 2020 in particular.

Jim Tolson: Finally, in setting the annual targets, what consideration did the Government give to previous estimates of cumulative emission

budgets, such as those produced by the Tyndall Centre for Climate Change Research? Its estimates of an acceptable cumulative budget suggest that, by following the annual targets in the SSIs and then a 3 per cent annual curve until 2050, we could end up emitting almost double Scotland's fair share of greenhouse gases. Is it true that the Tyndall estimate is something of an outlier at the moment, but with the lack of any definitive answer from the UK CCC it would have been prudent to take into account all available projections when setting the targets?

Stewart Stevenson: The Committee on Climate Change has taken account of all available projections. It is for that committee to draw in the science, make the assessments and consolidate and normalise the information. We have to draw ourselves back to the important point that the targets that we have set ourselves are the world's most ambitious.

We are leading the way in an environment in which not everything that will require to be done up to 2020 or 2050 is yet known but we always have our eye on what we are actually trying to do: although we talk about greenhouse gas emissions, we are trying to ensure that the average temperature in the world does not rise by an unacceptable amount. The reduction in greenhouse gas emissions is, if you like, almost a surrogate for that, rather than the end in itself. The temperature is our real goal and, until we have a better understanding of cumulative greenhouse gas emissions, we are working on the best information and analyses that are available to us.

Jim Tolson: The minister is right to say that Scotland has high recognition, if not the highest recognition in the world, for its emissions targets. However, I am concerned that that reputation will slip somewhat if we do not have and achieve more ambitious targets, particularly in the early years.

Shirley-Anne Somerville (Lothians) (SNP): One of the other aspects that was introduced to the bill as it progressed through the Parliament was sustainable development. How has it been taken into account in setting the targets that are before us?

Stewart Stevenson: Sometimes I need the bit of paper in front of me to ensure that I do not mislead members.

We have seven purpose targets and 15 national outcomes that apply right across Government and the public sector. We seek to ensure that sustainable development and sustainable economic growth are part of all Government decision making rather than a little stream of activity that is separate from the great majority of work. If we do not have sustainable development as a core part of everything that we do and if we

do not test that what we do is consistent with sustainable development objectives, we will not make the progress that we require.

Shirley-Anne Somerville: So your approach to sustainable development is a mainstreaming one. Rather than being able to pick out anything specific about the annual targets and their production, it is more to do with the policies and plans that will come through. Is that correct?

Stewart Stevenson: It is. We had the Sustainable Development Commission examine our approach and it concluded that it represents good practice in sustainable development governance.

We are not simply taking our own view of what we do but seek to have others examine it to ensure that we do not miss a trick. In sustainable development, as in so many parts of Government—or, for that matter, of business—we continue to improve our performance by examining lots of other people's activities, choosing the best of the things that they do and trying to incorporate them into our own plans, policies and practices. We will simply continue to try to do that.

Shirley-Anne Somerville: We also heard evidence from the Stockholm Environment Institute and Stop Climate Chaos regarding international equity related to cumulative emissions. They told the committee that developing countries will not accept developed countries, such as the UK, making small cuts early and larger cuts later in a particular target reduction period because that would reduce the emissions that they should produce while trying to develop their economies. Did you have regard to the international equity dimension when the targets were set for Scotland? Did the UK Committee on Climate Change consider the matter?

Stewart Stevenson: We have worked with a range of countries around the world—the partnership with the Maldives is well known. At a variety of international meetings, the Scottish Government, as a sub-state Government, has worked with many of the other sub-state Governments. For example, at Poznań in 2008, we successfully got the climate change group to adopt the policy that every country should have targets. That was a huge step forward for certain countries, particularly China and India, which, up to that point, had not accepted the need for targets. The argument that we articulated was that it was not for us to say, "Your targets should be the same as our targets," because we are at many times the greenhouse gas emissions level of a country such as India or China, although of course development in those countries is variable. The example that I point to is that there are 50 per cent more cars per household in Beijing than in

Edinburgh, Glasgow and London. Beijing has now overtaken many parts of the developed world, while the majority of China remains in a different position.

Did the Committee on Climate Change take specific cognisance of international equity? I am not sure that we specifically asked it about that subject—I might be told otherwise—but its advice refers to it. The global trajectory on page 15 refers to it, so it is clearly part of the committee's thinking. It is clear that it will become increasingly important. One of the things that better-off countries such as us and others are beginning to do is to look at environmentally friendly ways in which countries with relatively low access to energy can access renewable energy, which will not have the same kind of greenhouse gas emission implications that relying on oil has had for so long in the development of countries such as the United States, us, much of Europe and beyond. There are huge opportunities for us to help countries, particularly in Africa, where there is huge potential for solar power, for example.

Marlyn Glen (North East Scotland) (Lab): In setting targets, Scottish ministers are required to have regard to competitiveness, small and medium-sized enterprises, jobs and employment opportunities. What impact are emission reduction targets likely to have on those things?

Stewart Stevenson: Larger companies have been quite engaged in this agenda for some time and have seen it, particularly at the early stages, as an economically beneficial agenda to be involved in, because if you can reduce your energy consumption—almost everybody can—you can save money quite quickly. Many big companies have exploited the quite substantial opportunities that they have had. Small companies have done much less on this subject until recently. We have been supporting the Prince of Wales's mayday network, through which we have seen increasingly large numbers of SMEs sign up to the objectives and getting access to the kind of support that they have not had previously. Scottish Business in the Community is working with the mayday network. The number of SMEs involved has gone from a small number to, I think, approaching 1,000.

15:15

John Mason: More than 2,000.

Stewart Stevenson: I am told that more than 2,000 SMEs are now engaged with Scottish Business in the Community. The number rose when I was not looking. We have supported that directly and indirectly by engagement and through providing funds.

Many SMEs now see that getting control of their energy use and reducing energy waste can deliver economic benefits. It is just about managing the cost side of their equation, and in a sense, it is an immediate opportunity to save costs, which is beneficial. What is more fundamentally important is the creation of new opportunities for businesses. The green energy revolution will create many opportunities in different ways. In 2009, we announced a home energy apprenticeship programme that is creating new jobs, so our workforce is acquiring new skills that create opportunities.

Just as Scotland—or at least parts of Scotland—benefited significantly from the exploitation of North Sea oil over 30 to 40 years, we must now ensure that we are in a position to exploit the opportunities of offshore wind, tide and other green energy. I am quite clear that if we get ourselves in the right position here, there will be huge economic opportunities for us to increase the competitiveness of big companies and SMEs.

Marlyn Glen: And the jobs will come along with that.

Stewart Stevenson: Yes. To be absolutely fair, the previous Westminster Administration and, as far as I can tell, the Administration that is now in power at Westminster also see that agenda as being important. Therefore, there ought to be a certain unanimity of view that should help us to deconstruct barriers that might arise.

Cathy Peattie: We have heard from the 2020 delivery group, which sees itself as having a role in public engagement. Will that feed into the public engagement work that you are doing as a Government? Do you expect the 2020 delivery group to make recommendations about skills, green jobs and training? Clearly, there is an opportunity to build on its work, and I wonder what discussions have taken place.

Stewart Stevenson: We are represented on the 2020 delivery group, which is independent of but works closely with Government. With Ian Marchant, the chief executive of Scottish and Southern Energy, as its chair, the group is well connected. I think that it is currently developing seven workstreams and drawing in expertise to work on those.

The 2020 group is also represented on a number of our groups, such as the joint group with the Convention of Scottish Local Authorities, which I chair. That is a public sector group. One of the workstreams of the 2020 group relates to public engagement—I will just cross-check that.

John Mason: Yes.

Stewart Stevenson: I remember correctly. We all reach different people, and the more people we

have engaged in that, the more helpful it will be. The Government will bring forward more on public engagement in the relatively near future.

Marlyn Glen: What impact will the annual targets have on those who live in poorer or deprived circumstances? What can be done to mitigate any such impact? I am concerned that such mitigation might be left to the third sector.

Stewart Stevenson: People on lower incomes will have opportunities and face challenges. Clearly, as we move towards more renewable energy, there is a risk that the cost of energy will rise. Therefore, it is important to see energy efficiency as not just an economic issue but a fuel poverty issue for many people, which is why we must provide support for things such as insulation. There is a sort of balanced equation; as the climate changes, there are risks to certain categories of vulnerable people. For example, we saw a significant number of deaths in France, when it had a very hot summer. As heat moves north, we can see that replicated, particularly of course as people are living in accommodation that was designed for a different environment. If the environment changes, there are risks. People with poor mobility would be affected if the cost of transportation rose. That is why things such as the concessionary travel scheme, which the previous Administration introduced and which the current one continues to support, are very important.

One issue that we will want to look at and discover more about is the likelihood that people on lower incomes carry more uninsured risk. Extreme weather events are becoming more extreme and more frequent, which may well mean that some people will have to carry their own risk. That is something that we need to look at. In addition, in an environment that is changing, there will be issues regarding people who are not well connected, such as older people who are not well connected with families and do not have an immediate support circle. The adaptation framework that we are progressing will cover many of the issues that it is necessary to cover in that area. We will be bringing forward the results of our deliberations.

Marlyn Glen: I am interested in mention of the systematic use of the equalities impact assessment, but I wonder whether you expect there to be a different impact, for instance, on older people—you mentioned them, but they are not on the list—on women as opposed to men and on groups with disabilities. It is really important that there is not just a tick-box exercise and that you actually have plans to mitigate any effect.

Stewart Stevenson: I absolutely agree that we must take account of that. For my part, I do not know whether there is gender differentiation in this particular agenda, but the point is that we need to

ask the question and establish whether there is. There certainly will be differentiation, though. We came into this exchange on the basis of the economic strength of different people in our communities, which means that different people will be affected in different ways. The well-off will be affected at the margin, and the not well-off will perhaps be fundamentally affected in ways that we must take account of. The issues for people with ill health, older people and those who are less mobile will all have to be part of our equalities impact assessments, and will be.

Marlyn Glen: Good.

Cathy Peattie: I want to move on to the limit on carbon units and the carbon accounting scheme. The UK Committee on Climate Change suggested that carbon units might be used to address year-on-year validity. How can that be addressed in the absence of carbon units?

Stewart Stevenson: Perhaps you could run that past us again, because we did not quite grasp the point. My apologies, as it is probably our fault.

Cathy Peattie: Sorry. I read it very quickly. The UK Committee on Climate Change feels that the use of carbon units could not be viable over the year. How can that be addressed in the absence of carbon units?

Stewart Stevenson: Basically, in the early years, the numbers add up, so we do not need the carbon units—that is what it boils down to. However that is the case in the context of the four instruments that we have put before the committee today. The instruments cannot be disconnected from each other so that one could say something different.

If, for example, a radiative forcing figure that was not 1 were to be put forward, it would be impossible to put forward an order saying that no carbon units would be purchased by Government over the next two years. There is an holistic view.

Spending money buying carbon units is something that one would wish to avoid because, bluntly, it would be far better for the resources that we have to be spent addressing the problem rather than balancing the books. I do not think that there will be any dissent on that.

At the moment, we cannot readily identify any issues that arise through our not having carbon units. The issue was one that the Committee on Climate Change considered before making its recommendation.

Cathy Peattie: How does the Government respond to the view of Stop Climate Chaos that the SSI will allow for the purchase of credits over the next two years that can be banked for use in future years? Has the Scottish Government considered that?

Stewart Stevenson: We are not doing that.

The Convener: Are you saying that the Government does not intend to do that or that the SSI does not permit that?

Stewart Stevenson: The SSI does not permit the purchase of units over the next two years. Does it?

Drew McFarlane (Scottish Government Energy Directorate): It allows for their purchase, but not for their use.

Stewart Stevenson: Oh, I see. In any case, we do not intend to buy any units. It would be a waste of money.

The Convener: So, the Stop Climate Chaos interpretation of the SSI is correct, but the Government is making a commitment not to buy any units. Is that correct?

Stewart Stevenson: Yes.

The Convener: And you can, presumably, make that commitment for this year.

Stewart Stevenson: Yes. There is nothing in the budget for them, anyway.

Cathy Peattie: Does the Scottish Government have a view on the use of carbon credits from 2013 onwards?

Stewart Stevenson: We simply have to have more information, not least to enable us to understand what funding is available to us. As you know, we simply do not know what will come out of the comprehensive spending review in the next three-year period. There are a range of considerable uncertainties.

The fundamental point is that we would not plan to incorporate the purchase of carbon units as part of our policy, because we would rather use the money for purposes that are more directly focused on dealing with the carbon change agenda.

Cathy Peattie: Does the Scottish Government agree with the Stop Climate Chaos view that Gold Standard Foundation accredited carbon credit schemes should be used, if any are to be used at all?

Stewart Stevenson: I am not going to use the phrase “gold standard”, but the point that is being made is a perfectly fair one, which is that there is a wide variation in the impact of purchases that one might make.

The carbon units that are available to Governments around the world to purchase are not all denominated in the same carbon currency, and it is difficult to know what the exchange rates are. Indeed, if the exchange rates are secured against different things, they might vary over time. There is considerable uncertainty about what the

value of the units might be. Their value to a Government in bookkeeping terms is clear, but the value of the various types of credit in terms of making an impact on the world's climate is uncertain, which is one of many reasons why it is quite a good idea not to build dependence on them into your plans.

The Convener: The legislation requires that the Climate Change (International Aviation and Shipping) (Scotland) Order 2010 should address the question of a multiplier. Presumably, the Government agrees that an appropriate multiplier should be added, even though that level of recognition of a higher impact would make emission targets in other sectors harder to reach or would require us to do more to achieve them.

15:30

Stewart Stevenson: When the Climate Change (Scotland) Bill went through Parliament, we supported the idea of applying radiative forcing. As with everything else, however, we want to be sure that it is based on robust science. Therefore, we are taking advice from our independent advisers, the Committee on Climate Change.

It is also important that we do not apply a single figure. We want figures that reflect different segments of the aviation industry so that, over time, an opportunity is created to incentivise the aviation industry to change the way in which it delivers aviation. What do I mean by that? We have three broad classes of aviation: the pure jets that fly at the top, at around 39,000ft to 41,000ft; the turboprops that fly at around 20,000ft to 25,000ft; and the small planes, powered by internal combustion engines that run on petrol, that are down at the bottom of the pond, at 2,000ft. The impacts of those three types of aviation are quite different and it would be inappropriate to apply a radiative forcing figure to, for example, a flight from Kirkwall to Papa Westray. Nonetheless, it is important that we try to create a system that migrates more short-haul aviation—intra-Europe aviation, in particular—from pure jet to turboprop. The turboprop has a much lower impact, as the fuel burn is lower and turboprops fly at a lower altitude. However, at the moment, because we do not have the science, it is not possible to measure the degree to which the impact is lower.

We would want to have advice before us on a way forward that would enable us to have such variation in a scheme that, across Europe and beyond, would drive changes in the aviation industry. We must also have a scheme that takes account of the quite different impacts of flights that are relatively short—from, say, Glasgow to Dublin, which can take as little as 30 minutes in a pure jet. A great deal of such flights is spent ascending and descending and almost none is spent cruising.

Climbing and descending have a very different impact from cruising. There are a large number of questions, but, if we get the scheme right, there will be a huge opportunity to create an environment in which aviation will start to make a real change in its use of technologies to transport people that will deliver a real benefit in the long term. However, the Committee on Climate Change is telling us that the evidence does not currently exist to enable us to do that.

The Convener: So, in principle, the Government wants to apply appropriate multipliers to aviation—

Stewart Stevenson: I beg your pardon, convener. The important point is that, when non-neutral figures are brought forward in the future, as I expect they will be, they will be retrospective back to 1990 in any event.

The Convener: I understand your argument about the need for a differentiated multiplier. However, the committee has heard significant evidence on the approach that the UK Government takes. Several UK departments use the figure of 1.9, which is generally thought to be a pretty close approximation. There is clearly some element of doubt in the area, as well as some element of certainty. The clearest argument around the element of certainty came from the UK Committee on Climate Change, which, in an earlier evidence session, told the committee that everybody knows that the figure is not 1. Does the Government agree with that?

Stewart Stevenson: Yes.

The Convener: Then why are we using 1?

Stewart Stevenson: Because we do not have a figure that we can use at this stage. When we bring forward the right figure—a differentiated figure for different categories of aviation, to drive change in the way that aviation works—it will be automatically backdated. There will be no cost to our making the decision at a later point.

The Convener: It is hard to accept that there is no alternative figure that the Government could use when the UK Government has a different figure that it uses. Why was the decision made not to accept that figure?

Stewart Stevenson: No—the UK Government does not use its figure of 1.9 in that context at all, because that is not part of its legislative framework.

The Convener: It does not use the figure in that context, but it uses it to approximate the additional impact of greenhouse gas emissions from aviation.

Stewart Stevenson: I accept that it uses that figure—I am not trying to persuade the committee

otherwise. I am saying that there is no cost to the UK Government in adopting a figure of 15, 3, 1.9 or whatever it chooses. It can do that to help it to assess, in policy terms, some of the decisions that it makes.

We are talking about something that has a significant real-life impact on the way in which we address the climate change agenda. The fundamental point is that we need differential figures for different parts of the aviation industry, or else we will simply endorse the continuing reliance on pure jet.

There is a body of scientific opinion—it is as valid as everything else in this area—on things such as changes in the fuel that is burned by aviation. For example, the industry is still running on 3 per cent sulphur, whereas most other industries are running on 1.5 per cent or lower, and that has an effect on emissions from the jet pipe. Biofuels are already being used in operational service, which will change the impact. We know that the existence of ash in the atmosphere can fundamentally change the impact of pollutants in the atmosphere, because they can attach to the ash, although it is not certain whether the impact is changed for better or for worse.

The one thing we know—as the UK Committee on Climate Change made clear in giving us the neutral recommendation—is that we know very little in the context of making decisions with adequate certainty at this stage. We can decide to have a non-neutral figure, but because it will be backdated it is not critical that the issue is decided at this stage, before we receive adequate scientific advice.

The Convener: I take issue with the idea that that is the one thing that we know. No one has questioned the idea that 1 is the wrong figure. Is that true?

Stewart Stevenson: I am not denying that 1 is the wrong figure. We would not have supported the inclusion of radiative forcing in the Climate Change (Scotland) Bill if we had not believed that the figure should be other than 1. However, at this stage, we cannot say with any reasonable certainty what the figures—I emphasise the plurality that should be applied to different segments of aviation—should be. More research is required before the Government can bring those forward.

The Convener: Your argument is that until we are ready for that more nuanced approach, it is more appropriate to adopt the wrong figure than one that is clearly a closer approximation.

Stewart Stevenson: It is not clearly a closer approximation at all. It is simply a figure that is used to guide policy rather than to affect real-life behaviours. I do not know what the right figure is,

but I know that when we bring forward the right figure, its impact on the agenda will be backdated all the way. There is therefore no difficulty in saying that the decision should be made when the scientific advice is available.

That takes us back to our discussion an hour ago on whether we should give future ministers an excuse for what has happened in the past. That is what we will do if we as politicians choose numbers, rather than saying that the scientists should give us the numbers and that we should use them, which would leave ministers and politicians with nowhere to hide.

The scientists are not prepared to produce figures on radiative forcing at this stage, but those figures will come later. If we arbitrarily choose a figure without the scientists telling us that it is robustly evidence based, we will be opening the Pandora's box of politicians and ministers choosing, on any part of the agenda, figures that suit their purpose at a particular time in the debate. That will lead us into that chaotic world in which nobody will be able to defend anything and everybody will be able to escape from the consequences of the decisions that they make.

The Convener: Nevertheless, in presenting the aviation and shipping order, you openly acknowledge that you are asking us to endorse a figure that is wrong—which is 1.

Stewart Stevenson: Oh no, I am not saying that it is wrong.

The Convener: You did so a few minutes ago.

Stewart Stevenson: What I am saying is that I do not know any figure that is right, and neither does anyone else, otherwise the Committee on Climate Change would have brought us a figure. That committee is saying that, at this stage, it is not possible to know of a figure that is right. That does not mean that any figure that we choose is wrong; it merely means that we do not know, which is different.

The Convener: I will check the *Official Report* later, but I think that you agreed that 1 is the wrong figure.

Stewart Stevenson: I am perfectly happy to say that I believe that it is the wrong figure. However, I am not saying, "As a scientist, I know that it is the wrong figure," because I am not scientifically qualified to say that. Otherwise, we would not have supported the introduction of the aviation measures to the 2009 act.

David Stewart (Highlands and Islands) (Lab): I accept that you will not say much more about the multiplier figure, given the points that you have made. However, I take you back to a point on which I agree with you, which is that we should have a differentiated approach to aviation. One

issue on which we have agreed in the past is that there is a difference between turboprops such as those that serve communities in the Highlands and Islands, which are less polluting, and jets, which are much more heavily polluting. Because of the issue of particulates, a jet at altitude causes more damage to the environment than is caused by the same plane on the ground with the same emissions. In theory, and without going into the figures, do you agree that there is an argument that there should be a different multiplier for each aircraft type? Is the Government considering taking that differentiation approach, based on advice from the Committee on Climate Change?

Stewart Stevenson: The member is probably going slightly further than I am suggesting, depending on what the phrase “aircraft type” is meant to mean. For example, an Airbus flying with Rolls-Royce engines and an identical Airbus with General Electric Company engines will have different ash specifications under which the engine manufacturer will allow them to fly. We can get down to very granular levels of detail. We could do that on the radiative forcing issue, but I suspect that that would be unnecessary and would probably suggest an accuracy that is not possible to achieve. However, it would probably be right to say that there should be different figures for different classes of aircraft.

I return to the point that the policy reason for that is not a prejudice against one kind of aircraft or another, but simply because part of what we should try to take the opportunity to do—internationally, as well as in Scotland—is to use measures in this area to cause a change in the way in which aviation works and a migration to friendlier technologies and less polluting fuels. When we have a better and more scientifically based understanding of the issue, we will have the opportunity to move to something that creates the environment for delivering that change. I suspect that the member, like me, believes that aviation will continue to be an important transport medium in the world to come, but that it is absolutely important that it moves to being sustainable aviation, not the heavily polluting aviation that we currently have. We have an opportunity to play a part in that move.

David Stewart: There is a link to my final question, which is on shipping. You might recall from questions that I raised with you some years ago that there has been a trend among shipping companies to invest in cheaper but much heavier fuels. As you know, the problem with that is that those fuels are a lot more polluting. Do you think that the time is now right to have a more internationally recognised methodology for measuring emissions from shipping?

15:45

Stewart Stevenson: Yes, I do. A little known fact is that shipping is responsible for much more in the way of emissions than aviation is. From memory I believe that three types of fuel are used, at least in European waters: M30, M40 and M120. I do not happen to know what those stand for, but they are different weights of fuel. There needs to be a huge amount of debate and encouragement in this area. We have not yet got to a position in which particulates are trapped in any meaningful way from most merchant shipping.

As a Government, we are doing our bit in collaboration with the Northern Ireland Executive and the Irish Republic to come up with a new design for ferries that will be used in our jurisdictions and others. Hybrid power ferries are part of the early work that I have been shown. Such ferries would arrive into and depart from harbours under electric power, and when sitting in the harbour, particularly overnight, they would be plugged into the mains. The engines of many ferries run all night, polluting the local community with noise, particulates and so on. Although some work is under way, this is probably the area of the transport agenda on which least progress has been made but on which there is substantial need to make progress. We are anxious to engage with others on the subject. To be blunt, as far as I am aware, the issue is not terribly high up on the international agenda yet. None of my officials is indicating that they disagree with what I have just said.

The Convener: As there are no final questions for the minister or his team, we will move on to the formal consideration of the motions on the SSIs, which we will consider in order of motion number.

Item 2 is consideration of motion S3M-6286.

Motion moved,

That the Transport, Infrastructure and Climate Change Committee recommends that the Carbon Accounting Scheme (Scotland) Regulations 2010 be approved.—[*Stewart Stevenson.*]

Motion agreed to.

The Convener: The committee will report that to the Parliament.

Item 3 is consideration of motion S3M-6287.

Motion moved,

That the Transport, Infrastructure and Climate Change Committee recommends that the Climate Change (Annual Targets) (Scotland) Order 2010 be approved.—[*Stewart Stevenson.*]

The Convener: Does any member wish to speak in the debate on the motion?

Cathy Peattie: I still have real concerns about the order. The minister spoke of ambition. I have

no doubt that he is ambitious for the legislation; indeed, he has proved himself to be so. However, I would like him to take another look at the figures and at the Scottish Government's ambitions for achieving its aspirations for strong climate change legislation. Frankly, the targets in the order do not go anywhere near the targets that I would like to see, even as a start.

Jim Tolson: I oppose the annual targets order on behalf of the Liberal Democrats. Stop Climate Chaos Scotland described the annual targets in the order as disappointing. As I said earlier, it regards them as the minimum ambition and recommends that we accept them only grudgingly.

Throughout the passage of the Climate Change (Scotland) Bill, my colleagues and I took the position that the law must be ambitious and science led—the minister outlined that. We said that it should set an example to the world, a point on which I think that we are all pretty much agreed. In moving on to debate this key piece of secondary legislation, which contains the first batch of annual targets, we are committed to continuing to hold that position.

The minister will recall that his party was elected with the manifesto commitment of an annual emissions reduction target of 3 per cent from day one. He will also recall that, shortly after the 2007 election, his colleague, John Swinney, emphasised that the Government would not wait for the Climate Change (Scotland) Bill to become law; he said that the Government would act straight away to set Scotland on the right path for emissions reductions.

Therefore, it must be seen as something of a failure on the Government's part that the 2010, 2011 and 2012 targets, which reflect to a large extent the policies that have been implemented in the past three years, are so low. Equally, that reflects an on-going lack of ambition.

Meeting the interim target of reductions of 42 per cent by 2020 is not enough. We have to get there right away. The lack of information on a cumulative budget is not the Government's fault, but I would have hoped that that would serve to encourage ministers to take even greater early action. There are plenty of policy levers available to the Government across all sectors that could have an impact on our emissions in the immediate short term. Measures as simple as improving the uptake of cavity wall insulation or encouraging people to turn down their thermostats by just 1°C could be implemented with minimum effort and lead to emissions savings that would kick in immediately. Similarly, a measure as simple as encouraging the wider uptake of stop-start diesel technology in commercially used vans has the potential to be implemented in the short term and to begin to create immediate reductions. In

agriculture, moving to improve the timing of poultry manure application has been estimated to lead to an abatement UK-wide of more than 1,000 kilotonnes of carbon dioxide equivalent in the first year. Scotland could accelerate its share of that reduction.

Ultimately, the most important thing is not the point-in-time percentage targets but the overall, cumulative amount of greenhouse gases that are emitted. Broadly speaking, we do not know what the situation will be in one, two or even three years' time. The whole Parliament, including the Government, wants to demonstrate that the 2009 act is an ambitious law that sets an example for the world to follow. Surely the targets should be a clear statement of intent, demanding early action so that, whatever challenges we face down the road, we do not meet an unreasonably large single-year target that we have no realistic hope of reaching.

Shirley-Anne Somerville: The main point to stress is that we should set targets based on the science. These targets were advised by the UK Committee on Climate Change, which the Transport, Infrastructure and Climate Change Committee and the Parliament agreed was the correct body to give advice to the Government, and the Government has gone further than the Committee on Climate Change suggested.

It is also important to stress that Stop Climate Chaos Scotland has advised the committee that the SSI should be accepted. It may be disappointed, but it has not asked for the order to be voted down today. If the committee decides to ignore the independent scientific advice that it has requested from the UK Committee on Climate Change, in favour of an as yet unknown figure that is based more on politics than on science, we will set ourselves problems for the future.

The Convener: Although we had a useful debate on some of the issues during the evidence session, which echoed the debate on the climate change legislation, we need to recognise that there are tensions between different sources of advice. In some instances, we are asked to look at advice on Scotland's contribution to what is necessary to give us the best chance of staving off catastrophe in the future. In others, we are given advice on what is achievable within existing policy constraints. I would prefer to listen to the former and to change the policy constraints. It seems to me that, in the order, we are being asked to approve a slackening-off of our emissions reductions at a time when it is likely that emissions are going down for economic reasons. We should use that opportunity to lock in cuts, instead of allowing emissions the chance to bounce back and to go up again in the longer term.

As no other member has indicated a desire to speak, I offer the minister an opportunity to respond in the formal part of the debate.

Stewart Stevenson: With regard to members' concerns about ambition, I point out that, with its targets for reducing emissions by 42 per cent by 2020 and 80 per cent by 2050, our climate change legislation is the most ambitious in the world. The orders before the committee today deliver on that ambition. Shirley-Anne Somerville was absolutely right to point to the evidence that the committee heard from WWF Scotland and Stop Climate Chaos Scotland, both of which have said that the order should be approved.

Perhaps it was a slip of the tongue, but Jim Tolson actually said that we have to get to 42 per cent "right away". I think that that would really be quite challenging. He then said that there are plenty of policies, namely those on cavity wall insulation, stop-start diesel and the rescheduling of poultry manure spreading, that would enable us to achieve reductions over the next two years. Remembering that we have set reduction targets that are 0.5 per cent higher than those recommended by the Committee on Climate Change for each of the two years, let us look at the effect of such moves over the period in question.

There is some uncertainty but it is thought that, over that period, the contribution made by cavity wall insulation will be in the range of 0.01 to 0.001 per cent. I do not have a figure for stop-start diesel but, with regard to poultry manure spreading, if we take a pro rata figure, which would be 86,000 tonnes in Scotland, and say that 0.5 per cent would be about 600,000 tonnes, we will see that Jim Tolson's policy interventions would, even if we round to the point beyond the decimal point, make no difference whatever.

I and my officials are absolutely happy to work with members and the committee to test any policy intervention that anyone believes can make that difference in these early years. Members should not imagine that we have not sought to do that—of course we have—and it is in that light that we are proposing the figures that are incorporated in the order.

It is worth making the procedural point that if the Government does not proceed with the order it will no longer be possible under parliamentary rules to proceed with an order on the timetable required in the 2009 act. It is always possible for the Government to look again at anything that is done, but I ask the committee to listen to WWF Scotland and Stop Climate Chaos Scotland, both of which have said to the committee that it should accept the order—while continuing, quite properly, to harry the Government to bring forward new initiatives that will improve on the objectives

incorporated in it. I urge members to recommend to Parliament that the order be approved.

The Convener: The question is, that motion S3M-6287 be agreed to. Are members agreed?

Members: No.

The Convener: There will be a division.

For

Gibson, Rob (Highlands and Islands) (SNP)
Johnstone, Alex (North East Scotland) (Con)
Somerville, Shirley-Anne (Lothians) (SNP)

Against

Glen, Marlyn (North East Scotland) (Lab)
Harvie, Patrick (Glasgow) (Green)
Peattie, Cathy (Falkirk East) (Lab)
Stewart, David (Highlands and Islands) (Lab)
Tolson, Jim (Dunfermline West) (LD)

The Convener: The result of the division is: For 3, Against 5, Abstentions 0.

Motion disagreed to.

The Convener: Given that result, the committee will report to Parliament indicating that it has agreed not to recommend approval of the order. My understanding is that it is then up to the Scottish Government either to withdraw the order or to persuade the Parliamentary Bureau to schedule time for a debate in the chamber.

The next item is consideration of motion S3M-6288.

Motion moved,

That the Transport, Infrastructure and Climate Change Committee recommends that the Climate Change (International Aviation and Shipping) (Scotland) Order 2010 be approved.—[*Stewart Stevenson.*]

16:00

Rob Gibson: Once again, we are in a situation in which our understanding of the science is evolving. I realise that people are concerned about setting targets in this area, and I acknowledge the wish to go as far as we can, but I hope that the committee will recognise that the science at the moment does not safely allow us to go any further than the figure offered in the order.

The Convener: I take a different view. I feel that it is inappropriate to approve a figure that has no basis in fact. I also feel that, although it would itself be an approximation, a higher figure would be appropriate.

Does the minister wish to respond to the debate?

Stewart Stevenson: No.

The Convener: The question is, that motion S3M-6288 be agreed to. Are we agreed?

Members: No.

The Convener: There will be a division.

For

Gibson, Rob (Highlands and Islands) (SNP)
Glen, Marlyn (North East Scotland) (Lab)
Johnstone, Alex (North East Scotland) (Con)
Peattie, Cathy (Falkirk East) (Lab)
Somerville, Shirley-Anne (Lothians) (SNP)
Stewart, David (Highlands and Islands) (Lab)
Tolson, Jim (Dunfermline West) (LD)

Against

Harvie, Patrick (Glasgow) (Green)

The Convener: The result of the division is: For 7, Against 1, Abstentions 0.

Motion agreed to.

The Convener: The committee's report will confirm the outcome of that debate.

The next item is consideration of motion S3M-6289.

Motion moved,

That the Transport, Infrastructure and Climate Change Committee recommends that the Climate Change (Limit on Carbon Units) (Scotland) Order 2010 be approved.—
[Stewart Stevenson.]

Motion agreed to.

The Convener: Again, the committee's report will confirm the outcome of that debate. I thank the minister and his colleagues for taking the time to answer our questions in the evidence session and the minister for speaking to the motions.

The next item of business is consideration of our report on the budget strategy phase, which we previously agreed to take in private.

16:01

Meeting continued in private until 16:23.

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