

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

Tuesday 5 February 2008

Session 3

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TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

3rd Meeting 2008, Session 3

CONVENER

*Patrick Harvie (Glasgow) (Green)

DEPUTY CONVENER

*Cathy Peattie (Falkirk East) (Lab)

COMMITTEE MEMBERS

*Rob Gibson (Highlands and Islands) (SNP)

Charlie Gordon (Glasgow Cathcart) (Lab)

*Alex Johnstone (North East Scotland) (Con)

*Alison McInnes (North East Scotland) (LD)

*Shirley-Anne Somerville (Lothians) (SNP)

*David Stewart (Highlands and Islands) (Lab)

COMMITTEE SUBSTITUTES

Alasdair Allan (Western Isles) (SNP)

Gavin Brown (Lothians) (Con)

John Park (Mid Scotland and Fife) (Lab)

Tavish Scott (Shetland) (LD)

*attended

THE FOLLOWING GAVE EVIDENCE:

Susie Gledhill (Scottish Government Climate Change and Water Industry Directorate)

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

Philip Wright (Scottish Government Climate Change and Water Industry Directorate)

CLERK TO THE COMMITTEE

Steve Farrell

SENIOR ASSISTANT CLERK

Alastair Macfie

ASSISTANT CLERK

Clare O'Neill

LOCATION

Committee Room 2

Scottish Parliament

Transport, Infrastructure and Climate Change Committee

Tuesday 5 February 2008

[THE CONVENER *opened the meeting at 14:01*]

Climate Change

The Convener (Patrick Harvie): Good afternoon. I welcome everyone to the Transport, Infrastructure and Climate Change Committee's third meeting this year. We have apologies from Charlie Gordon. As usual, I remind everyone that mobile phones and other mobile devices should be switched off.

We have just one agenda item: a session with Stewart Stevenson, the Minister for Transport, Infrastructure and Climate Change, and his colleagues Susie Gledhill and Philip Wright. I welcome the minister and his team to the committee and ask him to make opening remarks.

The Minister for Transport, Infrastructure and Climate Change (Stewart Stevenson): The session is timely, because we launched the consultation on our proposals for a Scottish climate change bill last Tuesday. Members will be aware that the consultation document lays out our ambition to reduce Scotland's emissions by 80 per cent by 2050. That is part of an effort by all levels of government. The European Commission announced its energy and climate change package on 23 January and the United Kingdom Government's Climate Change Bill is in progress.

I hope that people throughout Scotland will respond to the consultation, because it is clear that the subject has very long-term implications. We are trying to set a way forward over a substantially longer period than normal, so engaging as many people as possible is even more important than it is in many other instances.

I and others are asked why we should have a bill when there is a UK bill and European action. In part, the reason is a moral imperative, but the proposed bill also presents the opportunity to lead the revolution to a new, greener and cleaner sustainable economy and to set a strong example that will encourage and inspire others. We hope that our bill will be at the forefront of what goes on in the world to tackle climate change.

The economic case is overwhelming. The Stern review explained that taking action sooner rather than later is the cheaper route to addressing climate change. Of course, such action offers clear and tangible benefits to Scotland. It can bring new

jobs, cost savings and opportunities for sustainable economic growth. There are new markets that are likely to be worth at least \$500 billion globally by 2050. We want to take action now to make Scotland wealthier, fairer, greener, healthier and safer.

Our objective is to ensure that the bill introduces a robust and credible framework to instil confidence and that the approach that we take in the bill binds this Government and many future Governments. Many of the questions for which we need more information will be answered much later, but we have a whole series of questions that we must answer now in relation to the bill.

A key element is consultation on how the target is measured—on whether we tackle all greenhouse gas emissions or target CO₂ emissions. The bill must maximise our renewable energy potential. Annual measures of progress are proposed as part of a multiyear budget approach in which budgets are set years in advance, to enable proper investment in new infrastructure.

However, that work is not simply for the Government. Parliament is the key to a future framework with transparent reporting and robust and regular parliamentary scrutiny—of which I guess this session is an initial part—backed up by independent advice and monitoring of Government progress. I highlight that as something to which the committee might wish to pay close attention. The issue of future scrutiny and reporting is in the hands of Parliament; the Government cannot dictate to the committee or to the wider Parliament. I welcome new and creative ideas for that part of the bill to ensure that current and future members get the information and expertise that they need and that a robust framework is developed.

A number of things are not in the consultation, which is primarily about creating a statutory framework. Certain policy proposals that are not in the consultation may end up in the bill. Further work on those issues is continuing and we will of course consult on them.

I thank the convener for his recent letter—I am sure that we will exchange correspondence over the piece. Our proposals introduce a new approach to tackling climate change, which needs to be embraced both by Government and by Parliament. That will require close working between Government ministers and members, including members of the committee. I welcome the contribution that committee members will undoubtedly make to all aspects of the bill and to the consultation, either as individual members or as a committee. I would like to discuss both today and in future how we can ensure that the proposals are as robust as possible.

Since taking office, I have had a number of discussions with various party spokespeople. I hope that members of all political parties in the Parliament will continue to be engaged and to make the most of the opportunities that exist for them to talk directly to and be briefed by officials without my necessarily having to be there—although I will need to know that such meetings have taken place. The whole point is to ensure that the broad framework offers a non-partisan way forward, once we have agreed at the end of the process what the framework in the bill should look like. It is clearly important that the committee has as much information as possible.

I am happy to answer your questions for the next hour and a half or so.

The Convener: The minister said at one point in his introduction that he was ready to answer a long series of questions. We have a long series of questions, so I remind members and the minister that questions and answers should be as brief as possible if we are going to get through them all in the time that we have.

Why has there been a further delay in the timetable for introducing the bill?

Stewart Stevenson: We have always sought to say that we would introduce the bill in 2008. It is a large bill that covers a significant number of quite difficult issues, and we certainly need to get it right. We need time to consult and to draft the bill. Normally, it would take some six months after the completion of a consultation to draft a bill of this kind. We are compressing that timetable and accelerating what we are doing. Of course, in relation to this consultation and the subsequent bill, that is not an excuse for our not continuing in the meantime to take the actions that we can to address the agenda. The Sullivan report on building standards, “A Low Carbon Building Standards Strategy for Scotland”, is an example of our not abandoning making progress while we set in place the infrastructure that the bill will create.

The Convener: The previous expectation was that the bill would be introduced around September this year, but we are now being told that it will be introduced “before the end” of the calendar year. Is that a realistic timetable? Are you able to give a clear commitment on that now?

Stewart Stevenson: We are making every possible effort to make it happen as fast as we can. We are genuinely in a consultation that may throw up some significant issues, to which we may have to respond in a way that will impact on the timetable. However, I am not anticipating that, so our best expectation and the resources that we are making available to the process are all predicated on our bringing forward the bill during the course of this year. However, as I said, it

would be unwise of me to anticipate what might come out of the consultation process; were I to do that, I would be saying that I had lowered my expectations of the consultation. I certainly do not want to do that; I want to raise expectations and encourage people to believe that the Government will listen to the points that are made. If you do not mind, convener, I will not make the absolute commitment that you invite me to make, but I make the commitment that that is the timetable to which we are working and we believe that we have the resources in place to enable us to deliver on it.

The Convener: Can you narrow down the timetable to which you are working any more than “before the end of the year”?

Stewart Stevenson: We will do it as soon as possible. It is extremely tempting to name a date and a time, but it would be unwise to do so.

The Convener: I will take that as a no.

Stewart Stevenson: I know that the convener and other members of the Parliament will monitor our progress carefully, and we do not wish to disappoint anyone who has an interest in the matter.

The Convener: As you said in your introductory remarks, the consultation on the bill sets a framework rather than specifying a list of delivery areas or policy measures to achieve the change that is sought. There is some discussion of the 2°C warming figure because it is one of the scientific aspects from which we derive the 80 per cent figure. Is the motivation for the bill scientific or is it more of a politically driven exercise?

Stewart Stevenson: The scientific advice before me is that a reduction in the range of 50 to 85 per cent—although I think that 50 per cent is now somewhat questionable—in CO₂ emissions will lead to containing the temperature increase in the 2°C to 2.4°C range. It is in that context that we established our figure of 80 per cent, which was at the upper end of the scientific advice at the time that we established it.

Are politics involved? Of course, because politicians must take the scientific advice and make a decision. We are the policy makers, but we are being driven by the science. It is interesting that the scientific advice has been for a 50 to 85 per cent reduction, but it is now homing in on the higher-end figure. That clearly justifies our decision to select a figure of 80 per cent, which is at the upper end of the range. We will find that many other jurisdictions will consider whether our figure is the one that they want to try to pitch for, but that is a decision for them.

The Convener: You accurately describe the trend in scientific knowledge. If the science tells us next year or the year after that a cut of 85 or 90

per cent is required to achieve the same stabilisation, would that be the driver that would change the Government's position on what its target should be?

Stewart Stevenson: We want the best possible scientific advice to drive the agenda so that it is not simply politically driven. If we rely on science and have a group of scientists for whom there is broad respect and who are accepted as people who give good-quality advice, we as politicians must pay close attention to that. That is why we have supported the United Kingdom Government's proposed committee on climate change, which I hope will give the best possible advice that we can get. We in Scotland will be able to put our own questions to it to address the circumstances that prevail in Scotland. There has been progress in the past couple of days, with the appointment of a shadow chairman.

The fact that there will be a significant scientific drive behind what will happen in future has been broadly welcomed. We are certain that we do not know exactly what the situation will look like in 2040. We do not know exactly what the science will tell us at that point about what is going on, and we do not know about the technologies and engineering that may be required to address that. That brings us back to why our approach is based on creating a framework.

14:15

Rob Gibson (Highlands and Islands) (SNP): The regulatory impact assessment that accompanies the consultation is very limited. It states:

"There are not yet any firm proposals"

for

"new regulations, new duties, new charges or new trading schemes".

Why do you deem legislation to be required now?

Stewart Stevenson: We certainly need a framework that allows us to bring forward over many decades secondary legislation that will address the situation in which we find ourselves and the need to continue the reduction in greenhouse gas emissions. The regulatory impact assessment that has been provided is not the whole story—it clearly cannot be.

As we bring forward specific proposals, we will need to ensure that we account for the impact of those proposals. I think that it would be specious at this stage to imagine that any impact assessment of whatever character can describe to Parliament—or, indeed, fully advise ministers about—the impact of everything that will happen under successive Governments up to 2050.

Rob Gibson: Why are ideas such as the ones that we are talking about not progressing more quickly, so that they can be included in the consultation?

Stewart Stevenson: You should remember that this is quite a technical consultation that is about building a framework rather than work that is going on. I referred earlier to the Sullivan report on building standards—that is on-going work that can progress quite independently of a climate change bill. Clearly, however, it should be part of the whole climate change programme—it will have its own environmental and regulatory impact assessments, and we will have to account for the costs that will be associated with any changes that come out of it.

The issue that is before us now is how we monitor, manage and create that framework. This is one of those deeply technical areas that we will have to work quite hard to get right, but it is independent of the actual steps that will make the difference. The management guru Peter Drucker said that a plan is nothing until it degenerates into actual work. In a sense, the framework is only an enabler, in that it will not itself deliver—the things that come within that framework will actually deliver over a period of time.

Rob Gibson: The "Supporting measures" section of the consultation document could be considered the most important, as it focuses on delivery, which we were just talking about. However, it accounts for nine pages out of the 85 pages in the document. Are we giving the public enough of a lead in trying to focus on what they might think they ought to be commenting on?

Stewart Stevenson: The nine pages on "Supporting measures" give some insight into some things that are going on and some that are about to happen. Energy efficiency; announcements that have just been made on waste; housing, which I have spoken about; issues relating to energy generally, such as wind farms and carbon capture proposals; and adaptations concerning the impact of flooding and the need to respond to that now—those are all active issues in the public mind, and in the mind of the Government and the Parliament. They all have to happen outside the framework regardless of the progress of the climate change bill within the framework.

We are simply including those measures to give people the insight that this is not just an arid technical exercise to produce a piece of legislation that in itself does not deliver, as I explained. It is a framework for a purpose, and those pages in the consultation are there to try to describe that. Of course, we cannot possibly know all the things that we will include, because the science will develop over time and our understanding in 2030 of some

risks—we might not be aware of them now—and the things that we need to respond to might be quite different from our understanding now. It is a taster, and it is designed to get the intellectual salivary juices running so people actually think that it matters.

Rob Gibson: If the situation is urgent—as we know it is—why does the Government's consultation document not include much firmer plans for action, such as a 3 per cent annual cut in CO₂ emissions?

Stewart Stevenson: The issue on which we are currently consulting is how we should make progress towards achieving the 80 per cent reduction in emissions that we have set as a target for 2050. It would make little sense, even if it were possible—and, clearly, it is not—for us to continue as at present until three months before the end of 2050 and then suddenly to reduce emissions by 80 per cent. Clearly, we need a strategy to show that we are making progress. That is why we have proposed that an annual report on emissions should be laid before Parliament.

We are consulting on exactly how we should achieve the target because many options are available. Scotland has a particular difficulty, in that climate events—whether we have a harsh winter or a mild winter—can have an impact of as much as 6 per cent on an individual year's emissions. Basically, that is beyond the ability of an individual Government to control within a short space of time. However, across the longer period, we need to ensure that—although we might like to have a smooth continuous line of progress or, indeed, to make early progress—any such blips occur within a downward trend. There are imponderables that we will not be able to deal with. The consultation includes quite a lot on the subject because we want to ensure that we explore all the options on how we should report on, and measure, progress.

Rob Gibson: I am sure that other members will want to explore that issue further.

Shirley-Anne Somerville (Lothians) (SNP): The "Supporting measures" section of the document refers to the important role that public bodies can play. It mentions voluntary agreements, such as the Scottish climate change declaration that has been signed by all local authorities, but it also discusses whether statutory mechanisms might be required later. Is the Government considering greater use of the partnership model for seeking agreement with local authorities—and other public bodies, such as higher and further education institutions—on what targets should be established rather than forcing such measures on people later in the process?

Stewart Stevenson: Clearly, partnership will be an important part of taking the agenda forward. One reason why that is self-evident is that approximately two thirds of the public sector is within the devolved competence and about one third remains the responsibility of the UK Government. At a very basic level, making progress on the agenda will require partnership between Governments. Similarly, a number of activities will require European Union and worldwide partnerships.

Your point about the role of other public bodies in Scotland is absolutely correct, but it opens up another topic—perhaps I will be asked about this later—which is whether we should set targets for individual sectors. As I said, events can mean a year-on-year variation of in the order of 6 per cent for Scotland within a trend that is heading the right way. Once we disaggregate the overall position in Scotland, we end up with an even greater variability that makes measuring the position difficult. However, the Scottish climate change declaration that all the councils have signed and the fact that others in the public sector are looking at what they can sign up to are indications that there is a desire for such partnership working.

Of course, partnership working is not just about vertical partnerships between the different layers of government but about horizontal collaboration with others in one's peer group. Therefore, the Convention of Scottish Local Authorities, as an expression of all the local authorities working together, is likely to have a role in helping local authorities to work together in partnership horizontally with one another as well as vertically with Government.

The Convener: I am worried that the consultation document contains no detail about the impact of the supporting measures, particularly in light of the fact that, even before the proposal has been set out in legislation, the Government has already stated clearly that its policy is to work towards an average 3 per cent cut. What information does the Government have about the impact of its various measures on the size of the reduction in carbon emissions? If you do not have that information at the moment, when will you have it?

Stewart Stevenson: It is becoming clear that the different sectors in our country that produce significant CO₂ and other greenhouse gas emissions will make progress at different rates. One example that, although not within our direct control, is worth discussing is power generation. In Scotland, we have two coal-burning power stations and one gas-burning power station. At the moment we understand the technology that would enable us substantially to reduce and then to eliminate the escape of CO₂ from power

generation, which means that we can see at a relatively early stage where some of the percentages come from.

The transport sector, on the other hand, presents a different set of challenges. We continue to see private vehicles—

The Convener: Forgive me, minister, but I asked specifically about the impact of the measures that are proposed in your consultation. When will you know what impact they will have in reducing CO₂ emissions?

Stewart Stevenson: We have not actually proposed any measures in the consultation, because it sets out the framework. As far as the supporting measures are concerned, we are illustrating a number of things that are going on at different delivery levels. If I have understood you correctly, the consultation is not doing what you have suggested; it is not directly about delivery. For example, although Richard Lochhead's announcement on moving towards zero waste stands alone, it will contribute to the agenda and be part of the framework that will be created in the climate change bill. We are, of course, examining the impact of our various policy initiatives on climate change as well as on a range of other issues.

The Convener: So the short answer is, "We don't know yet—and we don't know when we'll know."

Stewart Stevenson: A strategic overview detailing how we might reach the 80 per cent target by 2050 will be issued before the bill is introduced. We will be able to give far more information then.

However, it cannot be said too often that we are not waiting for the bill in order to do things. Instead, we are moving ahead with a range of initiatives that, individually, are the right things to do and make a worthwhile contribution.

Cathy Peattie (Falkirk East) (Lab): How were the key stakeholders identified for the pre-consultation phase of the bill's development? Aside from the consultation's publication on the website and the development of some consultation events, which will be run by an independent company, how is the consultation being rolled out across Scotland? What is the plan for assessing consultation responses in time to develop robust legislation?

Stewart Stevenson: In preparing the documents, we undertook a wide range of consultation with almost three dozen stakeholders including non-governmental organisations; academics and research specialists; business and industry leaders; and public sector bodies. I believe that a list of those stakeholders has been

provided to the committee. We also held a workshop at the sustainable Scotland network conference in 2007 and, at official level, we have been building up a great deal of scientific and economic information that has directly influenced the consultation's design.

We have notified directly by e-mail more than 1,000 organisations and individuals with a particularly strong interest in the consultation, as well as those who have signed up to our consultation notification system. We have not printed large numbers of the consultation document, because we want to do things in a green way. By the second day of the consultation, there had been 500 visits to the consultation paper's page on the website.

Your question was about how we would assess that the consultation was right. We have given building it our best shot and, as with all major consultations, afterwards we will look at how it has gone and ensure that we learn the lessons. We will be happy to share those lessons if the committee takes an interest in them.

14:30

Cathy Peattie: But will you listen to what people say during the consultation?

Stewart Stevenson: Of course we will. There is pressure on me to be more specific than I am willing to be yet, but we do not want to send out the message that we have made up our mind about everything, because we have not. Had we done so, the consultation would be merely a cosmetic exercise, and, in relation to legislation that will extend until 2050, that would ill serve both the agenda that we are trying to support and all of us in Parliament and wider Scotland. We are trying to clarify the options without unduly pinning everything down and simply saying to people, "Take it or leave it."

Cathy Peattie: I understand that. Given that the proposals run until 2050, how will you ensure that the opinions from across the range of age, experience and gender will be heard? How will you continue consultation over that time?

Stewart Stevenson: As responses come in during the consultation process, we can assess whether we have reached the parts that other consultations sometimes do not reach. I have said it before and I will say it again: I will be 104 in 2050—I am an old fogey. Philip Wright is nudging me so that I do not tell you how old he will be. It is important that we engage young people in the wider agenda. They are the ones for whom we are introducing the legislation.

However, as I have said, the Scottish climate change bill will be essentially a framework and will

deal with technical issues. The important point that we should learn from the consultation is how to manage consultations on the specific changes that will implement the agenda. For example, if we made proposals that related to the education system's use of energy, we could specifically engage with clients in the education system from the earliest possible age. That would be vital. The same would be true for the health service and councils.

Although we will seek to engage people in this technical pre-bill consultation, I have a hefty suspicion that those who respond will already be engaged with the issue. That is because they have the technical expertise that is vital to us. However, at every meeting that I attend and every school that I visit, I will encourage people to get involved. I hope that members will do that too—it is not just the minister's job.

Shirley-Anne Somerville: I have some questions about the current climate change context. A number of programmes and bodies feed into our analysis. One of my colleagues will later ask you about a future climate change committee. My question is about how we have reached the current stage. How have you ensured that the science underpinning your plans encompasses the best of UK, European and international expertise?

Stewart Stevenson: The primary focus for the future is the committee that the UK Climate Change Bill will set up. That bill is currently going through the amendment stage in the House of Lords, and the committee's first chair, Lord Adair Turner, has recently been appointed—on 29 January if I remember correctly. I am confident that that committee will draw in a lot of people—

Shirley-Anne Somerville: May I stop you there, minister? A colleague will ask you about that committee, and I do not want to steal their thunder. I am asking about how we have reached our current position. Bodies such as the UK climate impacts programme, the Scottish Environment Protection Agency and the Scottish climate change impacts partnership must have given you scientific evidence. Are you confident that it has been brought together effectively?

Susie Gledhill (Scottish Government Climate Change and Water Industry Directorate): The timing of our work has been fortunate, because the report of the Intergovernmental Panel on Climate Change appeared in advance of it. The report is the international synthesis of where climate change science stands; we will not get better than that. We have also worked closely with our colleagues in the UK Government on the UK Climate Change Bill, which has given us access to some of their expertise and to the Office of Climate Change.

On the UK climate impacts programme and the Scottish climate change impacts partnership, a lot of the consultation is about mitigation rather than adaptation. Scenarios that are due to appear this year will provide more detailed information and help us to focus our adaptation agenda. We have made use mainly of the science and reports that are already in the public domain. As wonderful as the Scottish Government and Scottish Parliament are, we should not second-guess the international expertise that is available.

Shirley-Anne Somerville: Some new European developments were mentioned. How do they play into your current position?

Philip Wright (Scottish Government Climate Change and Water Industry Directorate): I reinforce Susie Gledhill's points. Climate change is global. The approach to the issue is steered from the top—first by the United Nations, then by the EU, then by the UK Government as a member state, then by Scotland as a part of the UK and then by authorities below that. Much of what we do is informed by global science. The UK happens to be among the leaders in taking forward the international climate change agenda. We respect that and take advice from the UK Government, which has a great deal more capacity than we have to undertake global climate change science. Many of the signals that we get come from on high.

It is important to bear in mind the fact that Scotland is but one relatively small contributor to global emissions. However, the messages that we get from the international negotiations that are under way are that we need to be part of the response to climate change. The 80 per cent reduction in emissions that we propose is a distillation of the findings of the Intergovernmental Panel on Climate Change and the EU's commitment to avoid dangerous climate change, which is reckoned to start at an increase in temperature of 2°C. The Government's approach is informed by those messages, rather than by the work of the SCCIP or even the UKCIP, which is about adapting to the impacts of the climate change that is with us now. We are seeking to mitigate climate change by reducing emissions. That approach is informed by what is happening on the global scene.

Stewart Stevenson: One of my early engagements as a minister was to launch the Scottish alliance for geoscience, environment and society, which is a collaboration between various academic institutions in Scotland. The SAGES network will play an important role in the future, and we are already working closely with it. Although for the huge panorama of the subject we rely, as we should, on international understanding, there are specific local dimensions that we must

consider. For example, there are many more peat bogs in Scotland than in other countries. Peat bogs are a huge reservoir of CO₂, so we need specific policies to ensure that we protect that CO₂.

David Stewart (Highlands and Islands) (Lab):

We have already heard about the global scientific advice. My question is about the 80 per cent target. By and large, countries across the globe have received the same scientific advice, but they have set different standards for CO₂ reductions. Do you agree that any decision that you make is based not only on the science but on what you think is deliverable practically? Obviously, we must take into account the culture and nature of Scotland. You mentioned peat bogs; I was going to mention hydro power, which is a subject dear to my heart. Is it a little bit about science, a little bit about what you can deliver and a little bit about the resources that you can employ to ensure that we meet the targets that will be set out in the bill?

Stewart Stevenson: Mr Stewart makes important points. This is absolutely not a macho game in which countries say, "My reduction's bigger than your reduction," and it must not become such a game, because if we do not work together, we will not succeed together. It is indeed about the science, which tells us what we must achieve in the world, and about what we think we can contribute morally, but equally it is about opportunity. That is particularly the case in Scotland, because of our large renewable energy potential. Tom Johnston started the hydro revolution many years ago. As you know, it is still the Hydro that delivers electricity to our houses, notwithstanding the name change of the power company in the north of Scotland.

We should consider the progress that we have already made. Scotland is much more rural than other countries, but it is, funnily enough, doing better on transport, notwithstanding our continuing challenges. Of course, we are talking about a political decision. A choice must be made, because scientists have suggested a range of options that we should aim within. The range is narrowing, but we are still working within it. A political choice must be made.

I have talked about having a sustainable economy, which is central to the Government's purpose. If we act early to fulfil our opportunities and play to our natural advantages, we can not only solve our problems but create new industries and consultancies that will help people around the world to solve their problems. We can sell services and products to wealthy economies in the developed world and, as an act of altruism, help countries that have not yet made a huge contribution to the world's CO₂ emissions but which are entitled to aspire to having the economic

strength that we have to develop their economies without having the carbon impact that we have had over the past several hundred years as our economies have developed. The 80 per cent emissions reduction target is political, but it is within the scientific range and it reflects imperatives for which we can all see the drivers.

David Stewart: Will you talk through your thought processes on whether there will be a target for reducing CO₂ emissions alone or for reducing emissions from the basket of greenhouse gases? As you know, organisations such as Friends of the Earth have argued that the basket of greenhouse gases should be considered. Your consultation paper shows that if CO₂ has a global warming potential of one, methane has a GWP of 21—in other words, it is 21 times more damaging than CO₂—so it seems that a good case can be made for including it in targets.

I am interested in Ken Livingstone's introduction of a new low-emission zone. Perhaps you could say something about that or write to us if you do not have a brief on it. I think that lorries, trucks and buses that are high emitters will be charged an extra £25 when they go into London. The charging is a bit like congestion charging, but for emissions. Closed-circuit television cameras check the registration numbers of vans and lorries to see whether they are a problem. That is one way of reaching a target, because transport contributes heavily to global warming.

14:45

Stewart Stevenson: The member has asked quite a few questions.

CO₂ accounts for around 80 per cent of our greenhouse gas impact in Scotland, although I understand that that figure is slightly lower than figures for other parts of the UK. Elsewhere, the figure can be 85 per cent, although it would be fair to say that the numbers are imprecise. The consultation covers what gases should be included in the bill. The UK bill focuses on CO₂, but provides for the addition of other gases through secondary legislation.

Whatever conclusions we come to through the consultation and implement through the bill, they will not apply forever or until 2050, not least because we might discover that some gases have an impact of which we are currently unaware—the science might lead us to other things.

We have already made substantial progress on a number of the other greenhouse gases. Obviously, methane is a key greenhouse gas for agriculture, but we do not know what is going to happen. For example, there was a report of a pill that can be given to cows that reduces methane from the rumen by something like 97 per cent. Can

we afford to give the anti-methane pill to every cow in Scotland, and does it work? I do not know. *[Interruption.]* It has been whispered to me that the pill was developed at the Rowett Research Institute, so I have the greatest confidence in it. That illustrates perfectly the fact that we should not lose sight of such issues. The multiplier for other greenhouse gases—fluorinated or F gases—is substantially greater than 21: it is into the hundreds.

We have talked to Transport for London about what Ken Livingstone has done in London so we are aware that what is going on there is primarily directed at air quality and reducing particulates in the atmosphere. However, new generations of buses are being introduced and Transport for London is saying that only Euro 5 buses can be used. We have also had some initial discussions within the transport portfolio rather than the overarching climate change portfolio about whether regional transport partnerships might—as they can—introduce zones in some city centres that restrict access for older, less environmentally friendly buses. We can do that without charging people money, of course. That is at a very early stage, but it is on the radar and it is being discussed at the right level, which at this stage is the RTPs rather than the Government.

Rob Gibson: Why does it take 20 months for the Scottish greenhouse gas inventory figures to become available?

Stewart Stevenson: That is one of the better questions, in the sense that it is a difficult one, Mr Gibson.

It takes a long time and it is complicated. The science continues to evolve. We do not measure CO₂ emissions by sticking an antenna into the atmosphere and seeing how much CO₂ goes past it; we have a range of indirect measures related to economic activity in different sectors. It is a substantial effort for the statisticians to get the input from all the organisations that need to contribute. I would like the process to be faster, but my advice—and I recognise the virtue of that advice—is that, currently, if we were to speed up the process, we would reduce its precision and there would be greater margins of uncertainty. There is a balance to be struck, and we need to be cautious.

We will never get instantaneous readouts. Even if we manage to reduce the period of time from the period reported on to the delivery of the reports, the reduction will not be dramatic. Further work also needs to be done on disaggregating the results so that we can extract from the UK numbers those that apply to Scotland. Of course, when we start to do that the margins of error grow substantially, and if they become very substantial we start to raise big questions about the worth of

the exercise as a guide to policy and practice.

Rob Gibson: Leaving the science aside for the moment, can anything be done to speed up the process of bringing the information together? How much time out of the 20 months does it take to get the institutions and measurement agencies to bring the information together?

Philip Wright: The proposed committee on climate change will consider that on behalf of the UK. It will want to offer its advice as early as possible, so I suspect that it will seek to drive a faster process than the present one and will look for any short cuts. The position is exactly as the minister described. The process is complex. I remember looking at the UK's first greenhouse gas inventory. The annexes that describe the methodologies for obtaining the figures are an inch thick. In effect, proxies for direct emissions are measured. The process is complex, but you can rest assured that the proposed committee on climate change will want to speed it up over time.

Rob Gibson: In creating the consultation, what options were considered for methods of allocating emissions from different industries and what thought went into sectoral targets in the bill?

Stewart Stevenson: I am writing the questions down so that I do not miss them when I respond. To be clear about the thrust of your question on allocation, are you asking me to explore whether it is based on consumption or production?

Rob Gibson: That is one approach that I have read about in the consultation paper. I am also interested to know the allocations between, for example, transport, energy production and general domestic consumption.

Stewart Stevenson: Right. Let us think in the first instance about production versus consumption. That is an important question, because Scotland is a substantial exporter of renewable and non-renewable energy. Obviously, we export oil, but we also export electricity, which of course derives from a variety of sources. The real difficulty is that it is not within the gift of a single country to decide how to measure emissions. We need a consistent, worldwide approach to that because, if we decided to measure emissions associated with consumption, they would be counted twice, because other countries measure emissions associated with production. That is why we must have a consistent, worldwide approach, and the most straightforward way to do it is to use production, because it is within the boundaries of one's country and knowledge.

We need to manage a series of moral and practical difficulties with that. For example, as we stop manufacturing things and manufacturing moves to places such as India, China and Korea—

we are not promoting that; it is what is happening—the carbon cost of production also moves, and therefore even though our consumption of the goods concerned remains relatively unchanged, our carbon footprint appears to reduce. We need to ensure that we deal with that. In transport, we also need to come to a conclusion on how to deal with carbon emissions from journeys that cross boundaries. We must do that internationally.

The story of allocation has not been completely told yet, but it will have to be discussed and agreed at an international level. We will have to manage the difficulty of our exporting electricity. In other words, we will pay the carbon cost for what we generate, but others will get the benefit of that work. It works both ways.

WWF did an interesting analysis comparing the emissions associated with consumption and those associated with production. Interestingly, the figures were within 0.2 tonnes per capita of each other. That will certainly not be the case in every country in the world, and it may not be the case for us as our economy changes and we engage with the climate change agenda. However, at the moment, there does not seem to be much difference.

Rob Gibson: So you tend towards the consumption model and negotiating internationally to offset it.

Stewart Stevenson: I hope that I have not misled the committee—I was not saying that we tend towards the consumption model; I was openly discussing the options. It seems pretty clear that the international consensus is for a production model. Whatever our views are, we will have to work within that model, as well as take account of our broader carbon impact, which arises from other countries producing goods for our consumption.

Rob Gibson: I must rush on because the convener is conscious of the time. In the recent debate on the Budget (Scotland) Bill, John Swinney announced that a carbon assessment tool would be applied to all Government spending in Scotland. Do you have any details on that?

Stewart Stevenson: No country in the world has yet produced such a tool—I say that not only to indicate the nature of the challenge, but to highlight the opportunity that we have to set the pace and build up expertise in this area. John Swinney committed to introduce a system of cross-compliance, to ensure that spending decisions use the available techniques and information. By improving on the present situation, we will be able to better understand the carbon impact of our policy options.

Following the Stern review, we have updated

our analytical guidance on how to assess the impact of greenhouse gases for policy appraisal. The Department for Environment, Food and Rural Affairs has published on its website economic advice on carbon assessments and on the shadow price of carbon, so progress is being made, but at this stage it is not simply a case of putting a few numbers into a mathematical model and waiting for the magic answer to pop out. We will continue to seek to be world leaders on carbon assessment; we need to do such work for ourselves and because the rest of the world needs us to do it. However, being first means that there is a higher risk that we might have to rework our tool, if we discover that it is not as effective as it might be. We will need to wait and see.

Rob Gibson: A carbon assessment tool is not likely to be applied in this financial year.

Stewart Stevenson: We are doing our best to examine the carbon impact of each of our projects. Figures will appear on the carbon impact of particular projects, but we are not quite at the stage of being able to provide a single framework that will ensure a systematic and consistent approach across all our activity.

Alex Johnstone (North East Scotland) (Con): As we are running short of time, I will cut to the chase. You have set a target of reducing carbon emissions by 80 per cent, whereas the UK has set a 60 per cent target. In setting a higher target, are you not just letting the rest of the UK off the hook?

Stewart Stevenson: I said that I did not want to get into a debate about competitiveness, because that is not what the issue is about. The various Administrations of the UK will have to come to their own views on what opportunities they have and what action they will take. I understand that Wales faces a particular challenge even in meeting the 60 per cent target, simply because of where it is. If we genuinely want to engage in partnership and collaboration, each of us must identify the maximum contribution that we can make. The UK Government is extremely supportive of our having a higher target because that will help it to fulfil its international obligations. It is working with us to support our efforts and to ensure that we have the tools to do the job.

Alex Johnstone: I will move on briskly.

The consultation document mentions the work that many organisations have done on investigating the emissions that are associated with goods and services in Scotland. How much analysis has the Scottish Government carried out or commissioned?

Stewart Stevenson: At this stage, we are essentially relying on the work of others, but we have sought to apply a reasoned judgment to determine the extent to which we can do that.

Philip Wright would like to add to that.

Philip Wright: I am not very aware of the fine detail, but colleagues in our greener Scotland directorate are looking at Scotland's overall ecological footprint. As part of that work, they are assembling more data on consumption within Scotland.

Alex Johnstone: Is it your intention to commission any such work, should that become necessary as a result of the consultation?

15:00

Stewart Stevenson: In the first instance, the committee that is being established will be precisely the place to go for scientific advice. I hope that that committee, which will be made up of scientists, will tell us when we ask questions to which it feels unable to respond. In that circumstance, we would commission advice from other sources. The availability of independent high-level scientific advice will be helpful.

My peripheral vision tells me that Philip Wright has something to say.

Philip Wright: We are dealing with a new field of science and data collection. When the UK bill was passing through Westminster, the committee on climate change proposal flagged up a need for additional resources to fund additional studies because of a lack of statistics. A lot of work is going on at UK level and we are likely to need to commission similar work here, although that work will not duplicate what is done at UK level.

Alex Johnstone: Given that recent emissions reductions have largely been as a result of deindustrialisation, has the Scottish Government done anything to seek to prevent emissions simply being exported?

You said earlier that you intend to concentrate on reducing the production of climate change gases or to use a production basis rather than a consumption basis. You also conceded that there is a strong possibility that we might simply export our climate change gas emissions, but you said that you would deal with that. How?

Stewart Stevenson: It is perfectly possible for me to answer questions to which I do not yet know all the answers. [*Laughter.*] It is important for ministers to state that they do not have all the answers, if that is the case. At this stage of the process—leading up to 2050—we are still learning what the questions are: learning all the answers is a longer-term job. Of course, the consultation is an opportunity for people to help us to come to conclusions on the matter.

There are a number of difficulties. For example, if the fact that repatriating production to Scotland

might increase our carbon emissions were to end up as a disincentive to industrial production in Scotland, there would be serious implications for us. The issue of the exporting of carbon production that is associated with goods that we consume is one that must be dealt with at a level that involves questions of international competitiveness. We do not want to encourage production to move out of Scotland.

Although we probably do not have as much of the wind turbine engineering and production work as we might have had, the next generation of renewable energy will probably involve the development and production of marine turbines and so on, which we would like to produce. We must ensure that we do not have an approach that perversely promotes export of manufacturing because of the climate change agenda. We have to strike a balance. The consultation process is designed to ensure that we get input on how to do that.

Alex Johnstone: Are you telling me that, although we might work at that level at some point in the future, the export of our resources might in the meantime be part of our 80 per cent reduction?

Stewart Stevenson: Everything that happens, whether controlled by Government or not, can have a negative or a positive impact. It is absolutely not our objective to shut down everything that we do and export it. Bluntly, that would not serve the world's need to reduce CO₂ emissions. In fact, we have the opportunity to build industries and production systems that are more carbon efficient than others, and therefore not only to have the benefit of production but to make a contribution to the climate change agenda. It is a big issue, which is in the minister's in-tray and will continue to be in his in-tray.

The Convener: Can we move on? I ask for brief questions and answers—if answers can be boiled down to "Yes", "No" or "I don't know", that is perfectly acceptable.

Alison McInnes (North East Scotland) (LD): You have made it clear that you are genuinely consulting on a number of issues. You have taken some views already, and you have made it clear in the consultation document where that has happened. You have opted to go for a point-in-time target of 2050. Could it be argued that that target simply reduces responsibility in the short term and might send a signal that we can wait until nearer 2050 before we take action to reduce emissions?

Stewart Stevenson: You are correct that we have set a target, but that is not all. We have also said in the consultation—we want to interact with people—that we have to see clear progress

towards the target over the piece. As I said earlier, if we were to achieve the reduction only in the last few months of 2049 or 2050—you can debate what 2050 means—it would not be of any significant value. Clearly, we must make progress; indeed, there is no barrier to our making over-progress, if the technology opportunities exist for us to do that. Ministers have to be accountable to and report to Parliament and to its committees in the period to 2050 so that there is a genuine and regular debate about whether we are making the right progress and decisions. However, I hope that in the consultation on the bill and in the bill, we get the substantive issue about what we want to achieve and the broad trajectory we need to follow out of the way. We need consensus, or we will not succeed.

Alison McInnes: How we journey towards the end point is critical. In the consultation document, you acknowledge that an overall cumulative budget would give greater certainty, but you shy away from it because, according to the document, it would be

“more challenging and more costly”.

Is that not just throwing in the towel before we even start? You said earlier that you want to lead the revolution and that you want us to set a strong example. Why are you not prepared to set a strong example on this issue? Friends of the Earth has said that it is probably the most critical shortcoming of your proposals. Why have you already come to a view on it?

Stewart Stevenson: My towels are firmly under control and they remain firmly locked in the cupboard—they are not being thrown about anywhere. We want to set budgets as we go forward and we want to set periods within which we have to deliver. We want to show that we are making progress. It requires little thinking to agree with the Stern report when it says that reducing carbon emissions early will have a greater impact. Late reduction may substantially reduce the impact. We know that it will take 40 years for what is up there already to deplete, and for us to get back to where we need to be. There is therefore urgency about reducing what we are putting into the atmosphere—it is not simply about achieving something in 2050. We are considering updating building standards every three years for the next few years so that we can start to move incrementally. The same will be true in other areas.

David Stewart: As you know, minister, the carbon reduction commitment has UK-wide implications. Will that form part of the current consultation?

Stewart Stevenson: I think you are asking whether the UK Government might be involved in our consultation. We have certainly sent out the

message that it can be involved. We are working closely with the UK Government on the parallel UK bill. All the amendments to the bill that the UK Government seeks to promote come to us for comment before they move forward. There is a close relationship with the UK Government on such matters. In addition, Elizabeth Baird—one of our officials who has, I think, been before the committee—is tightly engaged with the UK Government's work.

All the devolved Administrations met UK Government ministers some time ago, and we are a bit overdue to do so again. There is consensus about the need to work together, which is reflected in the considerable amount of cross-working at official level and in the fact that, right across the portfolio, ministers work together when the opportunity exists. Everyone is, of course, signed up to the carbon emissions reduction commitment.

David Stewart: My next question is on the possibly more sensitive matter of annual targets. I am sure that the minister will know from his in-tray that many environmental and development organisations, such as the World Development Movement and Friends of the Earth, have been quite exercised about annual targets. You will know better than I do that the 3 per cent reduction target was in your party's manifesto, which is to your credit. However, the point has been made that there is a world of difference between annual reporting and incentivised annual targets. What is your view on that? Has the world moved on a bit since the manifesto was written? Have you looked at international comparisons that conclude, as you have done, that it is difficult to have incentivised annual targets? Basically, my question is about why your position has changed.

Stewart Stevenson: We have to make progress that works out at 3 per cent per year. We have suggested that we should report annually to Parliament on that. However, I have pointed out that there are substantial variations that are beyond Government control, which will oscillate on either side of the curve. In other words, the 6 per cent figure to which I referred previously will be beneficial for making progress in some years, but adverse in others. In fact, the variations, which are primarily from natural events of one sort or another, substantially exceed the 3 per cent figure. That is why a rolling programme of achievement and a budget for annual reporting is the best way of ensuring that ministers will be accountable every year for the progress that they make and the way in which they will bring us back on track. That will also ensure that, over the longer period to 2050, the target is clear in our mind and we can see the progress that we make towards it every year.

The consultation document includes the whole

business of how we measure the target, how we report and how ministers and the Government are accountable for what happens year by year. We must bear in mind Mr Gibson's earlier point that the information will always be 20 months behind what is happening. However, I think that ministers will wish to respond to events on the 20-month horizon about which it is not necessarily possible to report.

The business of timescales is extremely complex, which is why we are consulting on various aspects of it. I am not prepared to wait 20 months for the final figures if it is plain that I need to take action because a planned initiative is not making the progress that I want. The issue is multidimensional.

David Stewart: I understand your point, but I want to get to the bottom of what has changed since your party developed its manifesto. Has there been a change in the science? Do you now think that it is not possible to achieve the target? Could the manifesto commitment to an annual target of 3 per cent ultimately appear in the proposed bill, once the consultation has been completed?

Stewart Stevenson: I said to Cathy Peattie that the consultation is genuine. I expect the bill to set a target of 80 per cent, but I am less certain about other matters. We should let the consultation run its course and hear what people have to say. People must argue a case as well as dogmatically state something, so that we have the flexibility to overachieve, as well as the requirement to achieve.

15:15

David Stewart: So that is maybe no, maybe yes.

Shirley-Anne Somerville: A concern is that, given the multiyear accounting periods that could be included in the bill, emissions could continue to rise for quite some time if banking and borrowing were used. What is your thinking on the need to limit banking and borrowing to ensure that we do not just put off difficult decisions for the future?

Stewart Stevenson: That question is perfectly fair. The ability to bank is a clear incentive to overperform, because it means that if one sector managed a big step change—we could imagine that big quantum changes might be made in energy generation—that would be a clear example of when banking would be used. We will build up to making changes and then make a substantial change that delivers for the long term.

Borrowing provides the flexibility that might be needed for circumstances that are similar to those that Scotland experienced when a nuclear power

station was out of commission, which meant that coal-burning generation dramatically increased. In such circumstances, we might need to borrow. If borrowing took place, ministers would have to be clear about and accountable for that in order to satisfy Parliament, its committees and wider Scotland that we will not be a carbon credit junkie that borrows every year, and that we have a plan for repaying the carbon debt. On balance, banking is probably the stronger incentive than falling into the credit trap of borrowing.

Shirley-Anne Somerville: Concern is also felt about how long we could borrow for. Are you considering limiting borrowing to a certain time or percentage to ensure that it does not continue?

Stewart Stevenson: In the consultation, we might be interested to hear what people think the golden rule for carbon borrowing should be.

The Convener: I see the benefit of giving the Government incentives to bank excess carbon emissions reductions that have been achieved in a particular year but, conversely, is it not irresponsible to allow borrowing, even if it is to take account of unforeseen circumstances? Simply acknowledging that unforeseen circumstances may arise surely implies that steeper reductions in future years to take account of borrowed allocations cannot be guaranteed. No Government could say, "We've been unable to meet our aspirations this year, but we know we will be able to next year."

Stewart Stevenson: I would not use the term "excess reduction": "overachievement" might be a more positive description. We must simply accept that events that are beyond the Government's control will have impacts in particular reporting periods, so we must have a mechanism for accounting for that—for showing that we have reported a loss, in business terms, and for showing that we have taken action to address it. We are consulting on what the parliamentary scrutiny process should be and how Parliament should pursue ministers and the Government on that subject. How will the Government show that such an event in any reporting period will not simply become a way of life for ever? We cannot ignore the fact that events will occur.

The Convener: But that is my point, minister. If we cannot ignore the fact that there might be an event in a particular year that makes it impossible to achieve the average 3 per cent target—or whatever that year's target may be—we cannot guarantee that borrowed reductions will be repayable in the subsequent year.

Stewart Stevenson: That is about having a credible plan. It is about using the proposed committee on climate change to get the advice that will help the Government to test whether its

plans to recover the situation, where it has had to borrow—

The Convener: If the framework was operational and you had borrowed this year, you would not be able to stand up in Parliament and say that you could be sure that, next year and the year after that, you would be able to repay what you had borrowed. You would not be able to make such a commitment, would you?

Stewart Stevenson: I am uncertain why you choose to say that.

The Convener: I say it because events happen.

Stewart Stevenson: Of course events will happen. There are statistical probabilities for events. For example, in the design of culverts we are now working on the basis of a 200-year flood event. In the year that the 200-year flood event happens, there is a crisis, but, statistically, there are then 199 years in which we do not have such an event. By the same token, in our planning, we should seek to anticipate the kind of events that might happen to disrupt the progress that we want to make towards our 2050 targets. Part of that is to work out probabilities, so that the plan accommodates over the long term the things that might happen. I am not going to say today that we can anticipate everything that is going to disrupt our progress, because we cannot do so and it would be specious of me to try to persuade you otherwise. When things come up that we have not been able to anticipate and therefore have not been able to mitigate in the plan by way of a pre-programmed response, the challenge for Government is to identify a plan for the way forward and show the committee, the Parliament and everyone else that the plan will work. It would be quite a challenge for me to guarantee today that I can solve a problem that we do not anticipate.

The Convener: But it is not just about today. You or any future climate change minister could say in 2015, "We can borrow this year, because we have had events that have made things difficult." Such a minister would be able to add only, "And, fingers crossed, we can pay it back next year." It will come down to fingers crossed, will it not?

Stewart Stevenson: It certainly will not. If we have good planning and we know what we have borrowed, we need a repayment plan, just as we do in other circumstances in which we borrow. If the repayment plan is not convincing, there will be plenty of people on the minister's case. You are kind of suggesting that you would pay back in one year what you borrowed. I do not know whether it would be paid back in one year. It might be paid back in a couple of months, or it might take longer; it would depend on the circumstances and the

nature of the borrowing. That illustrates perfectly that we are dealing with a very long timescale with a lot of imponderables and, over that timescale, improved understanding of the science; better understanding of the risks to the climate change agenda; a better set of mitigations; and a better set of programmes and responses to things that might happen in future.

The Convener: I have a few other questions, which, in order to save time, I might put to you in writing.

Stewart Stevenson: I am happy with that.

The Convener: I want to spend a few minutes just on the issue of aviation and shipping emissions. Some people have argued that a long-term target for reducing carbon emissions except for aviation and shipping is like going on a diet except for pies. How would you respond to that?

Stewart Stevenson: Aviation and shipping are important parts of the equation. Aviation accounts for about 3 per cent of global emissions and for shipping the amount is two and a half times as great. We are strongly supporting the UK Government's campaign to ensure that aviation is included in the trading scheme so that the true carbon costs of aviation are reflected from the next round forward. Shipping is more open. Both those industries are ones in which, largely, there must be international agreement. There is debate in aviation, for example, about which country at the end of a route pays the carbon cost. It seems more likely that the country of departure should pay it. For example, an aircraft that diverted in distress could suddenly put us over our carbon budget if it happened to land at Prestwick although it had planned to land at Frankfurt.

Aviation is an important part of the world economy and of our economy, so we also need to consider whether we can encourage aviation practices that start to reduce the impacts of aviation. For example, turboprops have less of an impact than pure jets—sorry, convener, but you knew that that was coming. We also have to protect our internal aviation services, which provide thin links—often with lower load factors than elsewhere—to our islands, for example. We have a complex pitch ahead of us.

Of course, the Scottish Parliament does not have powers directly over aviation, so this is a classic example of a subject on which we will work with Westminster.

The Convener: We certainly do not have the power to replace the engines of the entire fleet with turboprops. I am not sure that that would be viable, anyway. However, one of the powers that we do have relates to the national planning framework. At the moment, that includes specific development to increase capacity at our airports.

Are we not looking at a long-term aspiration to reduce non-aviation, non-shipping carbon emissions against the background of an aviation policy that will increase, not decrease, the emissions from that sector? Whether or not those emissions are included in the target, they will increase rather than decrease—is that not the case?

Stewart Stevenson: I do not think that we can yet say what the impact would be.

Part of the work that is being done is aimed at tackling the substantial congestion at Heathrow. The absence of landing slots—the absence of capacity on the ground—is a significant contributor to CO₂ emissions and other emissions from aviation because aircraft are having to sit in the Biggin Hill stack, the stack at Ockham or the various other stacks around Heathrow because they cannot land. Additional runway space is being created, as are longer runways, which require less fuel to get off because the aircraft do not have to use so much power. There is a range of options.

We must also ensure that the efficiencies of aviation continue to grow. For example, bigger aircraft mean a lower cost per passenger being carried. It is a complex picture. As long as aviation remains an important part of our economy, we must ensure that it works as efficiently as possible not just economically but in a carbon sense.

It is important that we collaborate with our UK partners to ensure that, within the UK, we are working to provide viable and increasingly attractive alternatives to using domestic aviation. That is why our railways are so important—and it is why they are important to this particular minister wearing his transport hat as well as his climate change hat.

The Convener: Let me make the comparison with road traffic. Road vehicles have become dramatically more energy efficient over the decades, and attempts to build more capacity have not reduced congestion. We have seen continued congestion problems because the road traffic levels have increased. Are we not going to see the same pattern develop in aviation? If we build more capacity, it will fill up and, despite increasing efficiencies, if we fly more we will emit more.

Finally, on this section, are you aware of the projections that the Tyndall Centre for Climate Change Research has produced, which suggest that if aviation continues to expand at the current rate, well before 2050 it will have accounted for our entire carbon budget?

15:30

Stewart Stevenson: I suspect that in the real

world things would look rather different. Today, of course, we are talking about the consultation on the proposed Scottish climate change bill. The issues that you raise—

The Convener: My question is whether aviation is included in that bill.

Stewart Stevenson: You should bear it in mind that aviation is a UK responsibility and that, therefore, we have to work with our colleagues at Westminster on the subject. We are already working with Westminster, for example, to ensure that aviation is included in the European trading scheme. We strongly support UK initiatives on that. You also spoke about shipping. That is at a less advanced stage, but, similarly, we would wish to work with our colleagues at Westminster on that.

The Convener: I will take some of those as “I don’t know” answers.

Cathy Peattie: I have some brief questions on the scrutiny framework and accountability. Should a requirement be built in for multiyear budget reporting at least once in every session of the Scottish Parliament?

Stewart Stevenson: That brings us back to the consultation. There is clearly merit in the idea. If we had a five-year budget, a lucky Government might never have to account for its actions at that level. I expect that I might see responses that lead us to that conclusion, but the matter is genuinely open to question and people have different views about the reporting period. The point that you make is of value. Given that reporting on what happens with carbon is happening at the UK level, where there is not the same certainty about the length of time for which a Government is in office, there might be other things that lead one to a particular conclusion, but it is a fair point.

Cathy Peattie: The consultation asks whether parliamentary scrutiny is the appropriate way of holding the Scottish Government to account. Given that other parts of the consultation include options other than your preferred route, why did you not offer ideas on other ways for the Scottish Government to be held to account?

Stewart Stevenson: Every consultation ends with more or less the same question, which in this case is:

“Is there any existing legislation within the competence of the Scottish Parliament ... which needs to be amended so that appropriate action on climate change can be taken by sectors in society?”

Basically, there is a catch-all question. If we have not put the question that someone wishes to answer in the consultation, there is a request that says, “Give us the answer to the question you want us to ask.” The matter that you raise

probably falls under that.

Cathy Peattie: That is fair enough. You are consulting and you want to hear what people have to say, but do you have a view on the issue?

Stewart Stevenson: As I have said pretty consistently that we genuinely want to hear what people have to say, it would perhaps not be useful for me to rehearse at too great a length what I might currently think. The minister is there to be persuaded on many issues by the consultation process.

Cathy Peattie: We will remind you of that.

Stewart Stevenson: I am sure that you will.

David Stewart: As you know, minister, the Westminster bill seeks to set up a committee on climate change, and schedule 1 mentions that its membership must include people with knowledge of the Scottish situation. I welcome that.

What are your thoughts on the idea of having, in effect, a Scottish delivery team? That reflects some of the things that we discussed earlier—the fact that there are different characteristics in Scotland and the fact that we have a better track record, particularly in areas such as hydro. We also mentioned peat, methane and so on. There are particular Scottish issues that we need to consider.

Obviously, we do not want a conflict with Westminster or the committee that it will set up. I am talking about how we will deliver the Scottish legislation, whatever form it takes, and the idea of using a team of people from the voluntary sector and the scientific community to ensure that whatever target we set, be it 80 per cent or higher, it is achievable within the context.

Stewart Stevenson: Let us remind ourselves that, although there is scope for many other inputs on the societal impacts of policies and so forth, the proposed UK committee on climate change is a scientific committee. It most certainly is not geographically balanced and does not represent any particular geographic area, because membership will be based on the scientific qualification of the members of the committee.

The commitment that we have made to use that committee—that does not rule out our establishing our own committee in future, although it is clear that there would be implications if we did that—is predicated on our being able to ask questions that are specific to our circumstances and get a response that is as prompt and comprehensive as we require. The issue is that we need some people who understand the particular scientific challenges that exist in Scotland. Although there are peat bogs in England, there are probably fewer there than there are in Scotland, if I can pursue that particular distinct difference, but a

Scottish scientist will not necessarily be required to be the expert on the matter. I will certainly not get myself in the position of tying that down. I am being reminded that the committee will also include economic expertise.

I am convinced that there is good will to ensure that the members of the proposed committee are able to serve the needs of the Government and the Parliament in Scotland, but we retain the option, should it be necessary, to establish our own committee. I hope that the committee is successful, and I believe that there is every chance that it will be.

The Convener: I thank the minister and his colleagues for their attendance today. That is the end of our agenda, so I close the meeting.

Meeting closed at 15:37.

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