OFFICIAL REPORT
AITHISG OIFIGEIL

Local Government and Communities Committee

Wednesday 27 January 2021

Session 5

The Scottish Parliament
Pàrlamaid na h-Alba

Wednesday 27 January 2021

CONTENTS

LOCAL GOVERNMENT AND COMMUNITIES COMMITTEE
4th Meeting 2021, Session 5

CONVENER

*James Dornan (Glasgow Cathcart) (SNP)

DEPUTY CONVENER

*Sarah Boyack (Lothian) (Lab)

COMMITTEE MEMBERS

*Keith Brown (Clackmannanshire and Dunblane) (SNP)
*Gordon MacDonald (Edinburgh Pentlands) (SNP)
*Alexander Stewart (Mid Scotland and Fife) (Con)
Annie Wells (Glasgow) (Con)
*Andy Wightman (Lothian) (Ind)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Jeremy Balfour (Lothian) (Con) (Committee Substitute)
Sam Foster (Rural Housing Scotland)
Bryan Leask (Rural and Islands Housing Association Forum)
Elizabeth Leighton (Existing Homes Alliance Scotland)
Craig McLaren (Royal Town Planning Institute)
Elaine Waterson (Energy Saving Trust)

CLERK TO THE COMMITTEE

Peter McGrath

LOCATION

Virtual Meeting

Scottish Parliament

Local Government and Communities Committee

Wednesday 27 January 2021

[The Convener opened the meeting at 09:00]

Decision on Taking Business in Private

The Convener (James Dornan): Good morning, and welcome to the fourth meeting in 2021 of the Local Government and Communities Committee. Please ensure that all your mobile phones are in silent mode.

I remind members that broadcasting will operate your cameras and microphones as usual. Please allow a short pause after being called to speak, to allow them to do so.

Annie Wells has sent her apologies, and her committee substitute today is Jeremy Balfour.

Item 1 is consideration of whether to take item 3 in private. Item 3 is consideration of the evidence on the climate change plan that we will have heard today. As we are meeting remotely, rather than ask whether everyone agrees, I will ask whether anyone objects. If there is silence, I will assume that you are content. Does anyone object?

No one has objected, so that is agreed. Item 3 will be taken in private.

Climate Change Plan (Update)

09:01

The Convener: Under item 2, the committee is taking evidence on "Update to the Climate Change Plan: 2018-2032". The committee has joined three other committees in scrutinising the update to the plan, and today's focus will be on the buildings chapter of the update.

Today, we will hear from stakeholders and experts in housing, heat energy systems, architecture and town planning. I welcome our first witnesses, who are Sam Foster, project officer at Rural Housing Scotland, and Elaine Waterson, policy manager at the Energy Saving Trust. I thank you both for being here today.

For information, we have allocated about an hour for the session and we have a number of issues to discuss with you. Before we start, I have some brief technical information for you. There is a pre-arranged questioning order, so I will call each member in turn to ask their questions for a block of up to nine minutes. It would help broadcasting colleagues if members indicate to which witness their questions are addressed. We might have a short amount of time for supplementary questions at the end.

As there are only two people on the panel, please indicate clearly whether you wish to answer the question—for instance, by raising your hand. Do not feel the need to answer every question fully if your views are generally in line with points that have already been made.

I ask everyone to give broadcasting staff a second to operate the microphones before you speak.

We will now move on to questions, and I will begin.

Is the scale of the proposed reductions in the building sector an appropriate contribution to meeting the targets of a 75 per cent reduction in greenhouse gas emissions by 2030 and net zero by 2045?

Elaine Waterson (Energy Saving Trust): The Energy Saving Trust's focus is very much on the household sector. We are interested in buildings emissions, but just in the housing sector. From that perspective, it is quite hard to tell whether the proposed policies and proposals will be sufficient, because we do not know what we are aiming for in the housing sector. There is no clear specific emissions target for the housing sector.

It is also worth saying that lots of the ambition that is outlined in the climate change plan, particularly around the decarbonisation of heat in

buildings, is really ambitious. That is a really good sign that the Scottish Government is being ambitious for delivery.

Sam Foster (Rural Housing Scotland): [*Inaudible*.]—Elaine Waterson made there. It is imperative that we use our only statutory control mechanism, which is the building regulations, to set precisely what those targets need to be for new and refurbished buildings. Without those ambitious targets, we do not know what we need to aim for or how well the new buildings will achieve the Scottish Government's 2040 and 2045 targets. The 1.5°C target is, theoretically, what we should all be aiming for, but, without those targets, we do not know how buildings will contribute.

The Convener: Do you have any views about the four revised policy outcomes in the buildings chapter of the plan? Do you think that they are appropriate, specific enough and measurable?

Sam Foster: Like most documents of its kind, the plan has a degree of vagueness, so that specific policies can be put in place to achieve an overarching ambition of net zero carbon in buildings. I do not think that the document, as it stands, is clear enough in its ambitions; it says just that there will be net zero by 2045.

The document as a whole prioritises the supply of decarbonised energy over reduction in the demand for energy—in my opinion, that is the wrong way round—and that is reflected in the first two priorities. Priority 1 is about how the energy is supplied; priority 2 is about demand reduction and energy efficiency. However, as the old adage goes, prevention is better than cure. It is better that our existing building stock and our new buildings be as well insulated and draught proof as possible, so that their energy demand is low, before we put in the decarbonised energy to serve not just heating and hot water, but all other energy needs, too. The priorities are right, but they are in the wrong order.

The Convener: That is a fair point. Do you have any views on that, Elaine?

Elaine Waterson: I agree. Energy efficiency is vital, and if we do not get that right, the problem becomes too big. We absolutely have to reduce our energy demand first before then ensuring that decarbonisation happens properly.

The Convener: Do you think that the way that the outcomes are written, with one concerning supply and the other being about prevention, shows where the Government is placing importance, or do you think it is just how they have been written?

Elaine Waterson: I hope that it is just how the plan has been written. I do not know whether there is any intention behind the way in which it has been written, but it is important that energy efficiency comes first. Demand reduction must absolutely come first.

The Convener: To what extent do you believe the Scottish Government's plans in the draft CCP encourage the development of net zero carbon places?

Elaine Waterson: Much more detail is needed in the plans and policies that have been outlined. There is the high-level ambition, but we need much more detail about what will happen with new build between now and the proposed new-build heat standard, in 2045. Will buildings now be future proofed for low-carbon systems to be installed at a later date? We need much more detail on that and on what policies the Scottish Government is proposing for flats. About 30 per cent of Scotland's housing stock is flats, and the Scottish Government has said that it will prioritise action on flats, but we need more detail there.

We probably need more detail about how the rate of renewable heating systems will be ramped up and what will be done over the next few years to build up the number of installations and to build the supply chain to deliver those installations. We would like to see more commitment to regulation of buildings that are off the gas grid, to ensure that people know what their next heating system will need to look like in order for the Scottish Government to meet its targets. There is a need for much more detail around some of the policies.

The Convener: Are you also looking for a route map for reaching those targets?

Elaine Waterson: The question is more one of how they are to be reached. There are some nice infographics in the climate change plan update, with key numbers. For example, the plan says that, from 2030, at least half of Scotland's building stock will be heated using zero-emissions systems. That is nine years away.

At present, between 2,000 and 3,000 heat pumps are going into homes in Scotland every year. The target that I cited means that, essentially, we will need the same number going in every week between now and 2030. We need a much better sense of how the targets are going to be achieved. At what point will the Scottish Government say that the building regulations—or whichever mechanism—will require people to install a heat pump instead of a replacement oil boiler, for example? As you say, the stepping stones between now and the 2030 target are not quite there yet.

I am conscious that there is a commitment to providing more information in the heat in buildings strategy, so it would be good if the committee could look at that, depending on when it is published and whether it falls within the timeframe

for your scrutiny process. Without that knowledge, it is hard to say whether those actions will be sufficient to meet the targets.

The Convener: Does Sam Foster have anything further to add on that?

Sam Foster: I have a couple of points to make, convener. I go back the point that you initially raised with Elaine Waterson about how these things contribute to low-carbon places. One aspect that is not mentioned in the climate change plan or the update is that, as we slowly improve the energy efficiency of our buildings so that they use less and less energy, the amount of energy and greenhouse gas emissions from building those buildings, and the labour and materials that are involved in refurbishing them, which is called embodied energy, goes up as a proportion of the total carbon dioxide emissions of a building.

Imagine that we have a zero-carbon building that does not emit any greenhouse gases because it is so well insulated and it has a zero-carbon heating system. All of a sudden, the climate impact of that building includes all the energy and all the greenhouse gas emissions from constructing or refurbishing it. Those could be huge, particularly where cement, steel and materials that have a lot of greenhouse gas emissions associated with them are used.

The reason that that is important to place is that a lot of those materials come from abroad. As part of our transition, we need to broaden the conversation from being only about buildings to covering transport, industry and infrastructure. If we could move not just to low-carbon buildings but to low-embodied-energy and low-embodied-carbon buildings, it would increase the amount of local materials that we use, such as timber and other grown materials like hemp and jute. That, in turn, would affect land use and land use change in forestry. It would also affect transport, because we would have fewer emissions from transport bringing stuff in from the continent, and it would improve skills. Including in the update something that mentions embodied energy and the importance of that would be a valuable move, because it would impact on place as well.

The Convener: I will hand over to the deputy convener in a moment.

First, how easily achievable is that?

Sam Foster: It is happening now.

The Convener: I mean to the extent that it would make a huge difference.

Sam Foster: A number of fiscal and regulatory measures would need to be taken. The single most effective way of achieving that wholesale across the country would be for the building regulations update in 2021 to do two things. The first is to include embodied energy—the amount of energy and carbon that is used to build or refurbish buildings—so that targets are set for that. Those targets, in order to achieve the 1.5°C target that the Intergovernmental Panel on Climate Change has set, have already been developed in London by the Royal Institute of British Architects, in one of its documents. RIBA has set targets that we should be achieving in our buildings, and it would be good to see those targets included in the building regulations, as those are our only statutory control mechanism.

Secondly, we know that there are skills programmes—from Skills Development Scotland, for example—that are looking to upskill people not just in putting in insulation and draught-proofing buildings but in using low-carbon materials. We can build on those existing programmes so that there is a slight shift from the materials and products that are being used, and the methods that are being taught, just now to the new low-carbon, locally sourced materials. Through that combination of making it mandatory and creating a workforce that knows how to do it, we have two ways of pushing the thing forward and making it happen.

The Convener: Abusing my position as convener, I am going to ask you one more question. Would that have a huge impact on the existing workforce? Would it involve a lot of training, or is it pretty similar to what they are already doing?

09:15

Sam Foster: It is pretty similar. Insulating a standard timber frame construction—which is 90 per cent of what we build in Scotland anyway—with a petrochemical high-carbon product such as a rigid foam board of the type that was used in Grenfell involves a similar process and skill to the use of a non-toxic, renewable insulation material. All that is needed is to swap one for the other. There is very little training involved.

What comes into play, though, is a question of quality. At the moment, we know that about 95 per cent of the buildings that are built in Scotland fail to satisfy the minimum building standards regulations in things such as energy efficiency. We say that they are going to be of a certain standard but, in reality, they fall far below. That results in what is called the performance gap, which is a well-documented phenomenon that has been recorded by, for example, the University of Glasgow, the University of Sheffield and Oxford Brookes University.

As a first measure, we need to make sure that, when it comes to the performance of buildings, we do what we say. We need to get rid of that

performance gap. Another way of doing that is, again, through including in the building regulations a requirement that the performance of buildings is measured on an annual or five-yearly basis—a bit like the way in which cars are measured through the MOT every year—so that we can be absolutely certain that the carbon dioxide emissions from our buildings are as low as we said they would be.

The Convener: Okay. Thank you very much.

Sarah Boyack (Lothian) (Lab): I draw members' attention to my entry in the register of members interests. My former employment was with the Scottish Federation of Housing Associations.

It is good to hear both witnesses. The evidence that they submitted in advance has been really useful. I will ask a couple of questions about that—first on existing homes and then on new homes.

On existing homes, do you welcome the emphasis that is being put on tackling fuel poverty, which now affects just under 30 per cent of households? When tackling our low-carbon agenda, how can retrofitting link into the fuel poverty agenda in a practical sense, and what would be your short-term priorities for making the biggest change in that area? I ask Elaine Waterson to kick off with an answer.

Elaine Waterson: It is good that the climate change plan update proposes much better integration between fuel poverty and climate change. When it comes to how that can be done in practice, I point to the work that is already being done under the warmer homes Scotland programme, which is the Government's national fuel poverty programme. In each of the past few years, an increasing number of heat pumps have been installed under that programme. That is a good example of how the low-carbon and fuel poverty agendas can meet up. In essence, people are being given a heating system that will cost very little to run. From a fuel poverty perspective, that is really good. We would like to see that activity being ramped up, so that we get to a point at which the majority of heating systems that are installed using Government funding are low carbon.

Ultimately, we would like to make sure that the Government no longer funds fossil fuel heating systems. Obviously, that will take time. The systems that we are talking about are new, and vulnerable people in particular need a lot of support in using them, as they are often completely new to them.

Sarah Boyack: You used the word "ultimately". How do we ramp things up to go much faster? A lot of the evidence says that programmes should be doubled in scale or accelerated. What is your view on how we should ramp it up, not just for low-income households but for people who cannot afford to install kit in their existing homes although they might not necessarily meet the low-income requirement for getting support?

Elaine Waterson: Quite a lot of Government support is available at the moment. Towards the end of last year, a new cashback scheme was launched that builds on the existing Home Energy Scotland loan scheme. In essence, it gives cashback of up to £7,500 for a renewable heating system, with a remaining £2,500 loan. That is a big grant that is available now. If we want to see a ramping up of activity, we need to see a ramping up of Government support and a commitment to the provision of that level of support in the longer term.

The new-build market will play a key role in building a supply chain and building up numbers so that costs come down. It is important that the proposed new-build heat standard encourages the installation of heat pumps as opposed to storage heating. The new-build market will play a really important role, which is why we must get the quality right.

As I said before, probably from roughly 2025, when people who are living off the gas grid change their heating system, we must ensure that they are required to change it to a low-carbon system. Otherwise, we will not get the necessary numbers that the Scottish Government envisages.

Sarah Boyack: Why is it 2025 and not much earlier? That is four years away.

Elaine Waterson: In theory, you could make it earlier, but you would want to warn people that it was going to happen and get them to the point at which they are familiar with the fact that that change is coming. At the moment, most people do not even know what low-carbon heating systems and heat pumps are, so a lot of public awareness work needs to be done before any regulation is introduced.

Sarah Boyack: Sam Foster, on existing homes, how can we accelerate progress on energy efficiency improvements and low-carbon heating networks or individual low-carbon heat installations? You mentioned building regulations. What key mechanisms can the Scottish Government use in the short term to get going on that?

Sam Foster: I agree with everything that Elaine Waterson said. The draft climate change plan update mentions the fact that up to £13,500 per household is available through grants and cashback mechanisms, and that is a fair proportion of the money required.

There does not seem to be any understanding of what the cost will be to upgrade hard-to-treat

homes. There is such a diverse range of housing types across the country, from solid poured concrete in the Western Isles, to tenements in the central belt, to prefabricated concrete and timber frame houses from the 1960s, 1970s and 1980s. We need to understand how best to refurbish lots of different types of homes. A great deal of that work has been done by organisations such as Changeworks, so it would be valuable to build on that knowledge of the different types of housing and develop strategic approaches to each of those housing types. Again, that has been done.

An excellent book about sustainable renovation was written two or three years ago by Chris Morgan on behalf of the Pebble Trust. The book shows that only four or five common types of construction can be refurbished in a way that makes them low carbon and healthy.

I will come back to your question, but I will digress slightly. We know that refurbishment projects that were done 15 or 20 years ago are now being ripped out because they were not done very well. They resulted in increased fuel costs, discomfort, and poor indoor conditions, which, in turn, led to poor health conditions. Past poor-quality refurbishments have resulted in short-term and long-term health problems for occupants. Therefore, we are not just building in a refurbishment cost but a long-term health and social care cost, which, ultimately, we will have to pay for during the next 15, 20 or 50 years.

Whichever type of heating system is used and whichever refurbishment mechanisms and strategies are used for the various types of construction, a much wider approach needs to be taken. We should not just look at energy efficiency. Health needs to be a core consideration. Some of the energy company obligation refurbishments from six or seven years ago that involved putting external wall insulation on buildings were done so poorly that the internal conditions of the homes were worse after the refurbishments than they had been before. We cannot repeat those mistakes.

The conversation about existing buildings comes back to new buildings, because every new building that we build poorly today will be the refurbishment nightmare of tomorrow. We can prevent the current mess with existing buildings from happening in 20, 30 or 50 years' time by building really well now. I am sorry; that was a digression.

On Sarah Boyack's question, I am not well placed to comment on individual systems. I go back to my earlier point. Reducing the demand of existing buildings—the amount of heat that is needed in the first place to keep them warm—is the first essential step in reaching the goals in the climate change plan.

Sarah Boyack: With the convener's indulgence, I will ask a quick follow-up question.

The Convener: I can hardly say no now.

Sarah Boyack: Should a key intervention point be when people move home? Should the house have to be retrofitted at the point of sale, so that it meets higher environmental and energy efficiency standards? Is that a basic thing that we could do? A lot of home owners might not be aware of the opportunities to upgrade their homes, as Elaine Waterson said.

Sam Foster: The point of sale is a brilliant time for such matters to be considered, because that is the point at which the capital value of the asset—the property—is realised. It is the only point at which £100,000 to £200,000 is floating about. I suspect that the £13,500 that might be available from the Government to help home owners with refurbishment projects will only touch the surface. We should consider whether when a home is being sold is a good point to make such refurbishments mandatory. My inner socialist says that that should be compulsory, but other folk might have different opinions.

Sarah Boyack: I accept that that might not be achievable for tenements and flats, because multiple owners might need to be involved, but it could be part of a game changer for bespoke single-unit properties.

Alexander Stewart (Mid Scotland and Fife) (Con): Good morning. Earlier, Sam Foster talked about homes that are hard to heat and the failure to achieve energy efficiency across a lot of the country's housing stock. In rural areas, buildings are older and the stock is much more difficult to manage. Does the climate change plan sufficiently recognise the particular challenges that rural areas face in reducing emissions from their buildings?

Sam Foster: In a word, no. I am pleased that you have mentioned the disparity between rural and urban areas. I live in a rural area, where we face challenges and extra costs that folk in urban areas do not have. We do not grumble about that or even think about it, because it is a normal part of life. We know that we have to drive to the supermarket to get the shopping, and we cannot just nip to the swimming pool—certainly not just now. There are so many additional costs, some of which are subsidised, to living in a rural area.

When it comes to the cost of heating, being off the gas grid is part of the problem.

You will know from the research that has been done that a much higher proportion of folk who live in rural areas heat their homes with solid-fuel systems, and a lot of people still use coal and coke. It is much more difficult and there are far fewer incentives in rural areas for folk to upgrade

their heating systems, particularly because the cost of upgrading in rural areas tends to be higher, partly because their houses tend to be one-offs. It is a cottage here and a house there rather than a whole tenement or a row of homes, so the additional cost of upgrading a single house will be significant. So, no, I do not think that there is enough emphasis in the climate change plan update on the additional challenges that rural areas face.

09:30

Alexander Stewart: Following on from that, Elaine, if fewer incentives are available for people in rural communities, how do you see that progressing so that the rural side of things gets the right balance and the opportunity to actively participate in some of the incentives?

Elaine Waterson: That is an important question. I know that Elizabeth Leighton is taking part in the next session and the Existing Homes Alliance Scotland is doing some work on what rural transition support might be necessary. I just want to flag that that might be something that you might also want to ask her.

Grant support is available and in-home advice through Home Energy Scotland is available, and there are advisers who can go to people's homes and talk them through what is possible and what makes sense financially. As you say, however, for some hard-to-heat homes that will be much harder. That is as much as I can say about that at the moment.

Alexander Stewart: I will ask Sam Foster about building maintenance. The plan looks at building maintenance, but does it have enough specific detail on that and the whole-life approach that we have talked about in relation to how you maintain and sustain properties that will be built or developed? Has the plan captured that properly and does it provide the robust requirements that are necessary?

Sam Foster: There is quite a lot of mention of tenements in the climate change plan update, which is good, and a huge amount of work has been done on helping tenement owners and occupiers to understand how best to come together to deal with things such as common repairs. That could encourage them and also enable them to take on energy efficiency measures. The maintenance of tenements os well covered in the plan.

For other types of housing, there is not much emphasis in the plan on the importance of maintenance, and that in part comes back to the question of quality. Although existing buildings account for a much higher proportion of building stock than new homes and buildings, as I said earlier, the new homes and buildings that we are building now are the existing buildings of tomorrow, so the better that we build them, the fewer maintenance problems there will be in the future.

There will always be a requirement for maintenance. To expand on that—and I know this because we have researched it—the better we build our homes, the longer the life they will have. A home built at the moment has a typical design life of only 60 years, which is pretty shocking. If we build well, there is nothing to say that those homes should not last for 100, 150 or 200 years, like a lot of our good-quality traditional building stock does. The longer those buildings last, the lower the risk and the greater the return for investors such as mortgage companies. An important part of the conversation is about how, if we improve the quality of our new and existing buildings, we make them much more mortgageable over a much longer term, which decreases the economic risk and starts to bring in innovative ideas about how we can make paying for additional quality much more affordable.

Alexander Stewart: You hit the nail on the head, to some extent.

When we are building and supporting the industry to build better properties, it is important to ensure that those doing so are trained, that when a building site is being managed there is scrutiny and governance over what is taking place, and that the building is tested to ensure that it is compliable.

During other discussions about building processes, the committee was surprised about the lack of training. Corners are cut and there is no clerk of works on sites to manage them and ensure that everything is done properly. A little while down the road, things go wrong because there was no scrutiny or governance to ensure that the building was sufficient and effective. It is also often found that the building does not have the expected energy efficiency measures in place. There has to be a change in how the industry manages all that so that it can play its part.

It is all good and well to suggest that we will come up with all of these wonderful ideas to support building, but if that does not happen when the building is being constructed, there is a problem.

Sam Foster: We are now straying into the territory of how new homes and buildings are procured en masse in this country. As you will know, the majority of homes in this country are procured through private developers, and the volume house building industry is responsible for the greatest proportion.

When we look at graphs going back to the 1940s and 1950s, it can be seen that the proportion of council homes being built has decreased significantly. The building of council homes was overseen by clerks of works.

The rise in housing association and private developer house numbers can also be seen. We are at the point at which something like 85 to 90 per cent of new homes in Scotland are now delivered by the volume house-building industry.

That industry is bedevilled by vested interests. The people developing those properties are the people selling them and they have no long-term responsibility for the quality of those homes. That is why—

The Convener: Can we get back to the climate change aspect of this, please?

Sam Foster: It relates back to that, because the volume house-building industry having such high control over large numbers of homes means that it also has enormous lobbying power, which has stymied improvements to building regulations during the past 10 years.

In order for climate change plan targets to be achieved, we either need to reduce lobbying from the volume house building industry, or enforce quality through building regulations so that the new homes being delivered achieve a certain level of quality

Gordon MacDonald (Edinburgh Pentlands) (SNP): Sam, you have mentioned the importance of insulation a couple of times, and you have spoken about tenements. There are more than 800,000 tenement flats in Scotland. How do we go about insulating those buildings to reduce emissions and hit the targets in the climate change plan when many of them do not have cavity walls and some of the solutions would utterly change the character of the buildings?

Sam Foster: Earlier, I mentioned a book called "Sustainable Renovation", which was published by the Pebble Trust a couple of years ago. Together with organisations such as Changeworks Recycling, it has done a huge amount of work to show how buildings such as tenements, which have incredibly important cultural and architectural features, can be retained and still improve their energy efficiency and reduce carbon dioxide emissions. That is probably a good place to look. The fact that it is free to download from the Pebble Trust website means that anyone can get that information without having to pay for it, which is incredible. That would be my starting point. It can be done.

Gordon MacDonald: We have looked at that issue in various committees that I have been a member of, and insulating existing housing stock—particularly tenement flats—has always been considered a major challenge.

Of course, the other issue is the fact that two thirds of the housing property in Scotland is owner occupied. Many of those owners will be in tenement flats, particularly in my constituency. I am aware of the difficulty that people have in getting common repairs done, whether to the roof, guttering, security doors or whatever it happens to be. How do we tackle that aspect and enable communities to come together to address insulation problems in the building?

Sam Foster: Again, a lot of that work is already being done. There is a fantastic resource called Under One Roof, which is essentially a digital version of the tenement handbook. The tenement handbook and Under One Roof set out strategies and model templates for groups of people who live close to one another to get together to undertake not only maintenance and common repairs but things such as energy efficiency upgrades.

Elaine Waterson will also have a view on that. As she mentioned, Elizabeth Leighton, who will be giving evidence later, will have some good direction to provide on that as well.

Gordon MacDonald: We have talked about the fact that two thirds of houses in Scotland are owner occupied. Has there been enough public engagement? Which previous fuel poverty campaigns have had a good take-up and been efficiently run, which we could replicate to encourage home owners to tackle insulation and put in low-carbon heating systems?

Elaine Waterson: The work of the warmer homes Scotland scheme is brilliant in encouraging people to take up the fuel poverty scheme that is on offer; that is our gold standard.

It is a case of understanding where people are coming from, and the work of Scotland's Climate Assembly—which has just started up—will be important in doing a deep dive into where people are coming from, what they understand and what their behaviours and attitudes are. Having that kind of deep level of information should help to define that wider public engagement.

It is also important that people know that change is coming, and that they know that they will need to change their heating system and what their new heating system might look like and so on. When they know that and are willing to make that change, they need to have the support to do so. It is not a question of simply saying, "Right, you need a heat pump—off you go and do it." It is a case of telling them that there are financial incentives available and asking them whether they have thought about, for example, the fact that they need to get their home insulated at the same time.

People will need a huge amount of support. We are talking about new heating systems that will need to be used in different ways. People need to be aware of that, told how to use their systems and offered support with that.

Gordon MacDonald: Is there a role for councils in raising the public's awareness of new heating systems and the need for insulation?

Elaine Waterson: Yes—councils know the building stock in their local areas, so there is definitely a role for them. They run area-based energy efficiency schemes at the moment, and they often run their own schemes as well. There is therefore definitely a role for councils.

Councils also communicate with people in their local areas through, for example, council tax bills. They communicate with people who live in their communities in a range of ways, so there are already opportunities for them to do more.

Gordon MacDonald: Sam, do you have a view on what councils should be involved in when it comes to increasing the uptake of low-carbon heating and insulation?

Sam Foster: To pick up on the point that Elaine Waterson made, I say that local authorities know their housing stock extremely well, and because they have the ability to speak to individuals and to campaign, when people see information on insulation measures or heating systems that relates directly to their situation, they will find it much more interesting and will listen. They will also take that information on board much more than if there was just a blanket policy that said, for instance, that homes in Fife were getting a certain type of insulation or heating system. A local approach, which local authorities can help with, is key to that.

09:45

Gordon MacDonald: Do you think that the climate change plan is clear enough about wanting councils to be involved and to give that level of support to individuals?

Sam Foster: No—but I am not sure that that is the nature of how the report is written. As I mentioned earlier, such reports necessarily tend to be quite vague, so that the detail can be added later.

Andy Wightman (Lothian) (Ind): Good morning. I will follow up on the point that Sam Foster has just discussed with Gordon MacDonald. Across Europe, municipalities and cities are leading the way in much of the work to mitigate climate change. Do you think that Scotland's councils have sufficient powers and capacities to do what you were talking about, which is to take a local approach and implement local plans?

Sam Foster: Not at the moment. We need to make much more use of the tools that exist at a much more local level, with community action plans and local place plans. Those should be statutory mechanisms for communities to come together and say what is needed in their areas, reflecting their specific requirements, and to work closely with the local authority so that local place plans and community action plans get built into local development plans, which then go back up the chain to help to inform national planning frameworks, for example.

By themselves, local authorities cannot do that; I do not think that there is enough substructure to them. They need direct involvement from communities—they need that enablement.

Andy Wightman: This next question, which follows on from that point about local authorities, is for Elaine Waterson. My understanding is that the Energy Saving Trust holds a lot of data about Scotland's housing stock. Do we know enough about Scotland's housing stock for us to be able to tie that into the technical stuff that Sam Foster has talked about regarding what needs to be done to different buildings so that we can develop a detailed plan for retrofitting and refurbishment to achieve appropriate levels of insulation?

Elaine Waterson: I think that we do. We have tools such as home analytics that go down to individual home level, so we have data about what each home in Scotland looks like from an energy performance perspective. Huge amounts of data are made available to local authorities, which help them to plan their work, to plan area-based approaches and—where this makes sense—to undertake activities to tackle fuel poverty.

Andy Wightman: Is that information available to home owners and occupiers?

Elaine Waterson: It is available to local authorities. The primary information that is available to householders will be via their energy performance certificate.

Andy Wightman: If they have one.

Elaine Waterson: If they have one—absolutely.

Andy Wightman: I live in a property that has only just got one.

Elaine Waterson: Okay—you are right: not all homes have energy performance certificates. Something like 60 per cent of homes in Scotland now have an energy performance certificate, and you are right to point out that a significant proportion do not.

The other way for householders to access that information is by calling home energy Scotland,

which has access to information and will talk the householder through things. It is called a home energy check: the householder can give a rough idea of how old their property is, how many rooms it has and so on, so as to give a sense of what might be possible in their home.

Householders have access to in-home advice, too, if they are considering more complicated or more expensive measures. They have access to an in-home adviser, who can come into their home—not at the moment, obviously, because of the Covid restrictions. They can do a proper survey of the home, and they can provide a report to the householder about exactly what energy efficiency measures would be appropriate for that home and what they would save in terms of carbon and money.

There is a lot of support available to householders on what they might be able to do to their home.

Andy Wightman: People who have been looking at Scotland's climate change plans have focused on the fact that, as you noted, they tend to be quite high level. We need detailed action plans with timescales, practical outputs and money attached to them.

What role do you think that the tax system might play? It is not mentioned in much of the climate change literature. For example, vehicle excise duty is now paid on the basis of a vehicle's carbon emissions. Is there a case for the tax system to link taxes that relate to buildings, whether that is the land and buildings transaction tax or recurrent taxation such as non-domestic rates and council tax, to energy performance and carbon emissions?

Elaine Waterson: There is absolutely the potential for that. There is something in the list of policies at the back of the climate change plan update about the Scottish Government proposing to look at council tax as a mechanism to incentivise energy efficiency, so the Government is obviously considering it.

I did some research on that aspect about 15 years ago. A huge amount of research has been done, more recently by Citizens Advice Scotland, which highlighted that people respond slightly differently to tax incentives than they might do to other incentives. That comes from research with customers; I do not know whether it plays out in practice. Nevertheless, it is important that the Government looks at that area, and we are pleased that it has committed, in its climate change plan update, to do so.

One question is whether it makes sense to offer grants directly, as currently happens, or through a different mechanism. At present, the support is there—people can access significant grants for renewable heating. The question of whether it would make sense to change the way in which that support is offered—by providing it through council tax discounts, for example—needs to be looked at further.

Andy Wightman: Sam, you talked about building standards, which apply to new buildings but not to existing buildings. We have tolerable standards, for example, but they are not as robust. Is there a case for applying building standards to existing buildings? Secondly, you talked about design life, which is key to the level of embodied carbon within buildings. How feasible would it be to include design life as part of building standards? For example, the standards could stipulate a minimum design life of 150 years.

Sam Foster: You make a good point about building regulations and existing buildings; I think that Elizabeth Leighton will have more to add on that in the next session.

At present, there are two mechanisms. One is that all public buildings and all privately owned let buildings need to achieve a certain energy performance rating. In order to achieve that rating, some of them will have to undertake improvement measures, and that is the point at which building regulations would get involved. That is a great opportunity for the building regulations to say, "If you're improving these buildings, we want you to achieve not just a C rating—from now on, it is a B, and from 2022, it will be an A." We could ramp up the standards that privately let buildings have to achieve and how quickly that has to be done.

Most buildings go through a refurbishment process at some point anyway—it is a natural cycle. At that point, there is almost always a building warrant involved, and that is the point at which to enforce improvements to the thermal performance of existing buildings. It would be much more difficult to get through our current building stock of 2.5 million buildings to try to get them up to standard. I do not really have a very good answer for you on that one.

Could you remind me of your second question, please?

Andy Wightman: It was about design life. You talked about the design life of a typical new domestic building as being 60 years. Should design life be part of building standards, and should the timescale be more like 150 years?

Sam Foster: Design life is not currently in the building standards anyway.

Andy Wightman: —[*Inaudible*.]

Sam Foster: It would be good to have that. I do not know whether that would affect the construction types that are used. The aspect to include in building regulations that would have an

impact on the types of materials that are used would be the levels of embodied carbon that buildings had to achieve.

Andy Wightman: And that is not currently in the building standards.

Sam Foster: No, it is not.

The Convener: I am afraid that that is it, Andy. We move on to questions from Keith Brown.

Keith Brown (Clackmannanshire and Dunblane) (SNP): I think that it will come as a surprise to a lot of existing householders that they are untouched by building regulations.

On a point that was made about rural areas, large chunks of Scotland—such as where I live—are semi-rural and are not touched so much by the urban-rural distinction that is regularly made. Sam Foster said that the plan does not sufficiently recognise the challenges of rural or, indeed, semi-rural areas. What areas should the plan deal with if it is to properly address rural and semi-rural areas?

Sam Foster: To pick up on a point that Elaine Waterson made earlier in response to one of Andy Wightman's questions, I note that individual householders can ask for the Energy Saving Trust to assess their home. That is brilliant, because it gives an individual home owner an idea of what needs to be done.

In rural areas, organisations such as development trusts and community trusts can be incredibly powerful in galvanising groups of people to get together to do things communally. There are more opportunities in rural areas than there are in urban areas for the Energy Saving Trust to do things such as energy efficiency assessments on groups of houses, such as a terrace of houses, a cul-de-sac or three or four cottages, at the same time. That means that we can get economies of scale through people getting together to take similar refurbishment measures. If everyone lives in stone cottages or in poured-concrete houses on Uist, for example, a group of them can get together to take similar measures at the same time.

The climate change plan update does not recognise the difficulties and the extra costs that occur in rural areas, and it does not recognise the opportunities that rural areas offer to take advantage of existing structures and groups to do things on a communal basis.

Elaine Waterson: From a rural perspective, the other issue is that it can be harder to find local suppliers to fit or maintain a heat pump or to fix it when it breaks, for example. That is a big issue, particularly for people who live in very rural areas in which a heating engineer might have to travel a considerable number of miles to get to their home. More could probably be done to build a supply chain in such rural areas and give people confidence that, when things go wrong, they will be able to find someone who can help or who can fix their system quickly so that they will not be left with a broken system for any length of time.

I agree with Sam Foster that there are also opportunities to do things communally at the same time in order to reduce costs in rural areas.

Keith Brown: The question was really about what else needs to be in the plan to address the issues, but your points help with that.

My only other question is about comparative progress. We are getting a sense of where we have to be to catch up and meet the challenge that exists, but where does Scotland currently sit vis-à-vis Wales, England or other comparable countries? We all know that there is much more to do but, given some of the grants that we have talked about and some of the progress that has been made, where does Scotland currently sit in the 26th session of the conference of the parties—COP26—share in trying to address climate change?

Elaine Waterson: The Energy Saving Trust has offices across the United Kingdom, and we spend a lot of time talking to people in the rest of the UK about what a brilliant job Scotland is doing and what the other countries of the UK can learn from it about energy efficiency delivery. Scotland is way ahead of the other countries of the UK in respect of activity in the household sector.

I can provide some examples. We have a really good fuel poverty programme and a brilliant advice service. There are grants and loans that have been available for good chunks of time and programmes to support the supply chain. A huge amount of support that is simply not available elsewhere in the UK is available in Scotland.

10:00

Sam Foster: I do not have any knowledge of how Scotland compares with the other nations. I know that Scotland has the worst building regulations in Europe, so we have a bit of work to do there.

Keith Brown: Did you say that Scotland has the worst building regulations in Europe?

Sam Foster: For energy efficiency. Yes.

Keith Brown: Is that what you said? Scotland has the worst building regulations in Europe.

Sam Foster: Yes. That is right.

Keith Brown: Okay. I have no more questions.

Jeremy Balfour (Lothian) (Con): Good morning. A lot of what I was going to ask about

has already been covered. However, I have a couple of brief questions.

We have talked a wee bit about the delivery role of the 32 local authorities. Do they need any extra powers to enable them to move things forward, or do they have enough powers and the issue is how they use them?

Sam Foster: I do not know whether the local authorities have enough power. One of the biggest things that I would like to see is at the next level up; it is to do with VAT on the refurbishment of existing buildings. Obviously, VAT is a reserved matter for the Westminster Government, so the Scottish Parliament has no control over it. It would be brilliant if VAT could be set at the same rate for new builds and refurbishments, so that there is no incentive to build new instead of refurbishing. However, I do not have any comments on what powers the local authorities might need.

Elaine Waterson: I am afraid that I do not have anything to add to that.

Jeremy Balfour: My other question goes back to what we heard in the evidence session about the materials that we use for new builds and other work that is done on properties. Materials come from other parts of the world as opposed to Scotland or the UK. I have been contacted by stonemasons who have told me that it is very expensive to get quarried material from the north of England or Scotland compared with getting it from China, because of the way things are done. How can we incentivise use of more home-grown material instead of going to other parts of the world?

Sam Foster: One factor that is not included in the cost is the carbon impact of those materials. It is no wonder that it is cheaper to bring in stone from Spain, China or India than it is to use what is here. That is because our labour costs here are much higher. There is no factoring in of the carbon dioxide emissions of quarrying or transporting those materials. If there was a cost associated with the carbon impact of materials, using UK-grown materials would suddenly make sense. Until that is factored in or an enormous subsidy is provided, using them will not make sense. That is a very good question, and I am afraid that I do not know how we can get around it.

Elaine Waterson: I do not have anything to add.

Jeremy Balfour: I have no other questions, convener.

The Convener: In that case, that completes the questions to our first panel. I thank the witnesses for taking part in the meeting.

10:04

Meeting suspended.

10:07

On resuming—

The Convener: I welcome our second panel of witnesses. Bryan Leask is the secretary of the Rural and Islands Housing Association Forum; Elizabeth Leighton is the director of the Existing Homes Alliance Scotland; and Craig McLaren is the director for Scotland, Ireland and the English regions for the Royal Town Planning Institute. Thank you for your attendance.

We have allocated just over an hour for the evidence session and we have a lot of themes to discuss. You may have heard me say to the previous witnesses that if you agree with what a witness has said, feel free to simply confirm that rather than giving a full answer. Members will ask their questions in a pre-arranged order, with supplementary questions left to the end, if time allows. It will help broadcasting staff if members indicate to whom their questions are addressed in order. Everyone should allow broadcasting staff a second to operate their microphones before speaking.

We move to questions. My first question is the same one that I put to the previous witnesses. Is the scale of reductions that is proposed in the building sector an appropriate contribution to meeting the targets of a 75 per cent reduction in greenhouse gas emissions by 2030 and net zero by 2045? I ask Elizabeth Leighton to respond first.

Elizabeth Leighton (Existing Homes Alliance Scotland): Thank you for inviting EHAS to join the panel of witnesses. We are not technically expert on the issue, but the emissions reductions targets look ambitious. The targets are for the building sector as a whole, and our expertise relates to the domestic homes sector. There are not separate figures for residential properties, which would be useful.

The targets are ambitious because there has been little progress in emissions reduction in the building sector since 2014. There has been a 16 per cent reduction in the past 10 years, yet there is expected to be a 66 per cent reduction in just nine years. That is hugely ambitious—and it needs to be, because of the climate emergency. In the climate change plan update, we would like to see more detail and a credible policy framework that gives assurance that we can meet those targets.

I also point out that progress on improving the housing stock is slowing and that the non-domestic sector is probably in more of an unknown state—we have less information on that. Business-as-usual upgrades to achieve good

energy performance of housing is progressing at a rate of about 40,000 homes a year. The rate needs to more than double to 100,000 homes a year, but progress is slowing. It needs to move in the other direction.

However, the good news is that we have a strong delivery infrastructure for programmes. We have seen that with the development of the energy efficient Scotland programme and now with the merging of that programme with the Scottish Government's energy and climate change directorate, so that there is collaborative working with the heat team in. In 2015, the energy efficiency of buildings was declared an infrastructure priority for Scotland, which meant that we benefited from multiyear funding. That is all good, but it has not been enough, so we are still having to play catch-up.

Craig McLaren (Royal Town Planning Institute): Thank you for the opportunity to speak today. I am not a scientist, but I think that the targets look ambitious; I hope that they are also achievable.

One of our issues with how the document, and the ambitions that it contains, are set out is that it misses the point about the role of place. Although we are talking about buildings today, buildings sit in a context, and there is a need to think about how we can address that. Although greenhouse gas emissions for buildings represents around 20 per cent of emissions, how people travel between and use those buildings accounts for a larger proportion of greenhouse gas emissions—it is about 36 per cent.

We have noticed that there is a need to look at not just the housing unit, but the neighbourhood that it sits in and how that is affected. We can change factors such as density, siting and scale, as well as the infrastructure that we develop. We also need to look at the location—where we build. We need to explore that more, and there is an opportunity to do that through the national planning framework 4, which is under development. However, it is interesting to note that the 255-page draft climate change plan update includes only one page on planning. We think that a bigger role for planning could be recognised in the document.

Bryan Leask (Rural and Islands Housing Association Forum): I agree with the other witnesses that the targets are massively challenging. Given that gas accounts for 80 per cent of the heating that is provided to housing in Scotland, unless we find a way to decarbonise the gas network, it will be nigh on impossible to achieve the targets. How we deal with the gas network and all the properties connected to it is one of the main challenges that we face.

The other issue to bear in mind is that, as we move increasingly towards an electrified heating system, we must be conscious of whether the grid is capable of dealing with that. Only 11 per cent of properties in Scotland are on low-carbon heating systems, which generally are electric heating systems. We need to find a way either to ensure that we can increase the capacity of the grid, if we are moving away from a gas network, or to decarbonise the gas network itself.

The Convener: Do you have any views about the four revised policy outcomes in the buildings chapter of the plan? Are they appropriate, specific enough and measurable? I will start with Bryan Leask, as I can see him on my screen.

Bryan Leask: The earlier panel of witnesses spoke about the order of those priorities. They are probably in the right order, because the biggest challenge is about the supply of energy. We can make housing as energy efficient as possible—that is important—but unless we find a way to get energy into the home in a reasonable way, the rest of it is fairly moot. We need to find a way to decarbonise the gas network or to strengthen the grid. We can achieve the targets only by one of those two means.

10:15

Craig McLaren: As I mentioned, our biggest concern is that the focus is purely on buildings. I know that it is important that we have energy efficient buildings and that we retrofit as much as we can, but not enough recognition has been given to where buildings sit, how they relate to one another and how people relate to them. For example, we need to think about where we locate new buildings. We need to minimise the need to travel, reuse brownfield land or existing land that is being used and densify; provide public transport links so that people do not need to use their cars as much; and promote active and sustainable travel. We must also ensure that people have the services and facilities that they need close at hand, so that they do not need to travel in their cars. Those element are missing, and we need to consider whether they can be included.

Elizabeth Leighton: The Government has got the topics of the outcomes right. It is critical that action on heat and action on energy efficiency be progressed together—we use the term "fabric plus". We must do the interventions together; we do not have the time for an incremental process any more.

It is welcome that a just transition and a green recovery are embedded in the plan. However, I am disappointed that the outcomes are not quantified in any way, which will make it difficult for the Parliament to carry out scrutiny and understand

whether we are on track in a few years' time. What do the terms "highly energy efficient" and "substantially decarbonised" mean?

Some targets in the plan give an indication of how they can be quantified and are quite bold. I would like those targets to be linked to the ambition to convert a million homes to low-carbon or zero-carbon emissions heating systems by 2030, and to the ambition to double the number of zero-emissions heat installations year on year up to 2025. Quantifiable targets need to be linked to the outcomes so that we can measure whether we are achieving them.

Sarah Boyack: I thank the witnesses for the written evidence that they have given us in advance, which has been incredibly useful.

I have a couple of quick questions about existing homes. There is a target that all buildings should be energy efficient by 2035, which is 14 years away. Should the target date be sooner? Would that focus minds? As Elizabeth Leighton said, we already have extensive programmes to upgrade existing homes. How would you ramp up the work and make it faster? The witnesses in the previous session had some ideas, but I do not know whether you heard that evidence. If you did, do you agree with their thoughts?

Elizabeth Leighton: [*Inaudible*.]—the date that has been suggested. In the annex of the climate change plan update, the Government suggests that the standard of high energy efficiency will be measured by a building having an energy performance certificate of band C or better. We have called for Scotland to set a standard of EPC band C for the vast majority of domestic buildings—there will always be some exceptions—by 2030. We think that that is completely doable and absolutely necessary in the face of the climate crisis.

We have already heard that it is essential that, in order to install low-carbon heating systems, buildings be as energy efficient as possible, so that they work cost effectively and to best effect. We have called for that standard to be set and accelerated in the route map. The Parliament has supported that in the past. In order to achieve the target, we think that that regulatory standard should be mandatory. In that way, we could drive the market and give people advance warning, so that they are able to take advantage of the many incentives and advice programmes that Elaine Waterson spoke about earlier. Without setting that standard, it is harder to drive the demand, and the supply chain therefore does not respond by growing supply to a guaranteed pipeline of ambition.

Sarah Boyack: I pick up on the point about buildings and the need for low-carbon electricity. I was particularly interested in the experience in Shetland and the building stock that Bryan Leask is working on. Are you linking electricity production to homes as well as working on energy efficiency in new builds? Are you doing any of that through retrofitting?

Bryan Leask: We are not doing anything to produce electricity on the property at the moment. We have focused on getting the properties as airtight and energy efficient as possible.

It is important to recognise that 90 per cent of energy production in Scotland is through renewables technologies. If the whole network becomes green, the question is then about the carbon element that we must provide in relation to the houses themselves.

I am on the working group that is looking at the new build heat standard for 2024. We are considering the heating element at point of use, which is really important. Building standards can dictate what we do in the property, but not what happens in the energy network as a whole. However, given that 90 per cent of our energy is currently produced by renewables technologies, an electric heating system using 90 per cent green technology provides an answer.

To follow on from what Elizabeth Leighton said about using an EPC as the measure for energy efficiency, one aspect that we find quite challenging is the use of the standard assessment procedure—SAP—which is a UK-wide system for calculating energy efficiency. I do not think that that is necessarily appropriate for Scotland. UK-wide, renewable energy on the grid is about 47 per cent. That is half of what we have in Scotland. The level of green technology that is powering our houses is not recognised.

As Sarah Boyack saw when she was up in Shetland, the new houses that we build are really airtight and well insulated. The type of heating system becomes less important, because its energy use is minimal. A full EPC or SAP assessment on such a brand new house will give a B rating. That EPC lasts for 10 years, after which it must be renewed. After 10 years on an existing property a reduced data SAP—RDSAP—is used. For exactly the same property, if a mechanical ventilation heat recovery—MVHR—system has been installed to improve the air quality because it has been made so airtight, it will lose 9 SAP points. Nothing else has changed, but 9 SAP points will be lost because RDSAP software looks on that as an electrified element.

The difference is that the SAP is a cost-based system. It assesses new build properties on carbon. On a new build, the standard is achieved on carbon production. However, when an RDSAP or an EPC is done on existing properties, it is

based on cost. At the moment, unfortunately, electricity costs about 15p per kilowatt hour and gas costs about 4p per kilowatt hour. Given that the gas element is a quarter of the price of electricity, just installing gas would sort out the EPC calculation.

You asked whether the timescale is too long. As a registered social landlord, we have to achieve our B-rated standard by 2032. That will be very challenging, particularly if an RDSAP is used to calculate that measure.

Sarah Boyack: That is a really important point, and I am quite keen to link your experience in the social sector to general building. You have talked about your high standards. Could those be applied across the building sector, so that all new builds, whether for social housing or for private sale, could have those higher standards built in now, rather than waiting for years?

Bryan Leask: Yes, absolutely. There is no reason why those standards cannot be applied now through the building standards requirements. Because of its location, Shetland probably has one of the worst fuel poverty levels in Scotland and in Britain. We took a decision many years ago that we would go well beyond the building standards requirements. As time has moved on, the building standards level has increased, but it still does not even come to the level that we have been building to during the past 10 years.

There is no reason why the building standards requirements could not exceed their current level, and go beyond the carbon element of the heat and cover the fabric of the building, too.

Sarah Boyack: Thank you—that is helpful evidence.

I turn now to Craig McLaren from the RTPI. You made a powerful bid for planning to be part of the process not just for individual buildings, but for the wider community network. I think that we can take that on board for transport in particular.

If we think about buildings as networks, there is quite a lot of emphasis on decarbonising existing heat networks and building new ones. How does planning begin to engage in that in practice? We are looking at 2024 and 2025 as game-changing timescales. Is there not a need for those responsible for planning to accelerate some of the work so that the houses that will be built are meeting higher standards and the wider approach can be delivered now, rather than waiting another 10 years?

Craig McLaren: Heat networks are an interesting issue for planning, and we are trying to facilitate them. Planning is often brought in late in the day. It is thus often seen as the barrier that people have to jump over—whereas I see planning as much more of a facilitator and enabler.

We need to ensure that planning authorities are engaged at the start of discussions, which allows us to put in place processes and procedures so that things can work more effectively. There is also a need to build planning into the longer term, and the role of local development plans is an important part of that. I would like the national planning framework to say quite a lot about how we can be proactive in building heat networks.

I am never a fan of thinking about how to skip round the planning system, but there is another aspect that we can look at in the shorter term. There are instances in which we can put in place permitted development rights for things that do not have much impact, and that minimises the need to go through the planning process. There may be particular aspects of the heat networks development process where we could consider that. I know that the Scottish Government is considering that as part of its review of permitted development rights.

Jeremy Balfour: Good morning to the panel. I have a question about how local authorities are involved and what role they play. In particular, do local authorities currently have enough power to take things forward in this regard?

Elizabeth Leighton: Local authorities are a linchpin to success in achieving the targets. As you heard from the previous panel, they know their housing and building stock. Very importantly, there has been discussion about authorities being given a duty to create local heat and energy efficiency strategies. We think that it is essential for authorities to be given that duty and the resources, so that they have the capacity to develop the strategies.

The plan contains a target to complete the strategies fully by 2023. We think that that could be brought forward—it should be as far as possible. Where we have good plans in place that have been carried out on a pilot basis, they should start to be implemented. Only once we have those plans do we know what the zoning is for heat, what the most appropriate heating technologies will be or where the resources should go as a priority for neighbourhood or community retrofit programmes. As Craig McLaren said, the strategies are essential facilitating and enabling planning tools that we need to get going as soon as possible.

10:30

More generally, local authorities have suffered during the past 10 years through austerity, and they do not have the resources that they need not just to do that planning effort but to run the area-

based schemes that have been hugely successful in putting solid wall insulation in place in their own properties and which have extended into the private sector. Those have been hugely successful, they have developed a lot of expertise and they have achieved great economies of scale. We think that that model could be extended into energy service companies in partnership with private sector—often on a not-for-profit basis—to develop the low-carbon and energy efficiency solutions that we need on a wider scale.

Local authorities will also need powers for enforcement and regulation of the standards and for facilitating community partnership efforts to undertake these big energy efficiency programmes. Therefore, without a doubt, local authorities are a linchpin to making things happen and I would like to see more attention and support given to them in the climate change plan for the building sector.

Craig McLaren: As Elizabeth Leighton said, local authorities are key to the delivery of this. That said, they have to work in partnership with others and be as collaborative as they can.

Planning has both a regulatory function, in setting standards and ensuring that they are adhered to, and a visionary role, which is often forgotten about, in which a vision is set out and a route map is developed to get to what the vision consists of. Therefore, it is not so much about a change of powers as it is about changing the way in which planning is used in local authorities and more generally.

I said earlier that planning can quite often be seen as reactive—it reacts to planning applications—but we need to think much more about how it can be seen as a tool that facilitates and sets out a vision. That means having much more front-loaded early engagement and trying to flip that engagement, particularly with developers and communities; we need to move away from the way in which most people engage with the planning system just now, which—to be honest—is by objecting to a planning decision. That is their right and it is perfectly legitimate for them to do that, but I would like to flip it and make it much more about asking people what they want for their communities and developing an honest discussion about that and a route map to get there.

We could also make planning more a part of the corporate machinery of local government. Planning is often brought in late in the day, but we could try to bring it in earlier. There are opportunities to do that through the Planning (Scotland) Act 2019, which provides for chief planning officers, who could be place sustainability champions in local authorities.

There are also other opportunities through things such as the place standard and place principle. The small issue with that is that it is a principle and is almost advisory. We need to operationalise it to ensure that we think about what places will look like, what they will be and how decisions that are made will affect those places and have an impact on climate change.

Jeremy Balfour: I will respond to two points from that and then open the question to the rest of the witnesses. First, I was interested in what the previous panel said about our building regulations being the worst in Europe. Is that your view?

Secondly, as someone who sat on the planning committee of the City of Edinburgh Council for 10 years, I know that there is political pressure and pressure from the community when you are making decisions. You talked about wanting to engage with the community, but my experience as a councillor is that half of the community want one thing and the other half want another. How do we depoliticise planning and make it much more visionary?

Craig McLaren: On the first question, I am not as close to building regulations as others are, so I cannot comment on that aspect.

On engagement, you are right. Planners are often like referees in the middle of a football game—we have to make decisions that please some people but do not please others. The way around that is to have a more mature discussion and to think about our places as a whole, rather than focusing on individual planning applications.

Early engagement and discussion can be very useful. Initiatives such as charrettes have been developed to promote discussion with communities and stakeholders. We need an honest discussion that looks at not only the opportunities but the constraints and the context in which we are working to see what is achievable and realistic. From there, we can move towards a route map, which maps out how we take that forward and who has a responsibility and a role to do this, that or whatever, and by when. That is very important.

As part of that, we can perhaps move away from set-piece one-off consultation exercises to something much more like a dialogue. In that way, we can continue to adapt and change things, and think about new circumstances. One of the key mechanisms for that will be the local place plans that were brought in by the Planning (Scotland) Act 2019, which allow communities to develop their own ideas for things. We need to fund and support those to make them effective.

Jeremy Balfour: Does anyone else to comment on the building regulations and whether they are fit for purpose?

The Convener: I cannot see anyone wanting to come in.

Jeremy Balfour: If not, that is me done, convener.

The Convener: I will bring in Keith Brown.

Keith Brown: Thank you, convener—

The Convener: Sorry—I will let Elizabeth Leighton in first.

There is a terrible delay today. Elizabeth, did you want to come in on the previous question? I did not notice that you had put an R in the chat box.

Elizabeth Leighton: Yes—sorry, convener. I wanted to come in on building standards.

The issue of new-build standards was well covered by the previous panel, so I will say only that EHAS would like the new-build standards on zero emissions from heat to come in earlier. They will take effect for planning consent from 2024; we should be aware that, with planning, there can be a considerable lag time of three years before a new requirement bites in terms of something being built on the ground.

We think that the Government should look for ways to bring that forward. In particular, if there is public money involved, those new-build standards should be applied as soon as possible—from 2022, I would say. Social housing, for example, should be built to a high standard so that we do not put on the public purse the cost of retrofitting those buildings in the future. There are opportunities to bring that forward through incentives and voluntary action.

I also have a quick comment on energy performance certificates. I wholly agree with what Bryan Leask said. There is an action in the climate change plan that relates to looking at the whole issue of assessments. The Scottish Government has been looking at the matter for several years and has undertaken a lot of research and consultation, so we know what the problems are. Let us hope that the Government is going to crack it now, and that we will have an assessment system that will be aligned with net zero, using the environmental impact rating—as Bryan Leask said—instead of the cost rating. There are ways to do that, and the Government needs to do it very quickly.

The Convener: Thank you for that.

I am sorry that you had to wait, Keith—you can come in now, if you want.

Keith Brown seems to have dropped off. I suggest that we move to Andy Wightman, and then we will go back to Keith.

Andy Wightman: I will follow up on a point that Elizabeth Leighton made. You talked about how successful the area-based schemes have been, and the committee has seen much of that success. You say that they are now being rolled out to the private sector in some places; what lessons can we learn from that approach in relation to the required pace of the delivery and the need to go beyond the public and social housing sectors?

Elizabeth Leighton: The area-based schemes are not being rolled out to the private sector, but there are some examples of local authorities delivering low-carbon heating schemes in their areas—for example, Midlothian Council is partnered with Vattenfall. We think that that could be an interesting model for how not-for-profit schemes could be developed with local authority expertise and partnership; that would extend their experience from the area-based schemes more widely as we need wider take-up in the private sector. That could be a way of providing affordable heat through energy generation but also of dealing with the retrofit of properties.

Andy Wightman: Is the Midlothian scheme with private housing, social housing or a mix?

Elizabeth Leighton: It is with private housing, as I understand it, but there are ambitions to include other types of housing; it is a multiyear—I think, 10 years—programme. I could investigate that and write back to you on that point.

Andy Wightman: That would be helpful, thank you. Craig McLaren, national planning framework 4 is under development. What key aspects should be included in that in relation to mitigating climate emissions in Scotland's buildings?

Craig McLaren: The NPF can play a big role and, as I said earlier, planning and the NPF to an extent are probably underplayed in the climate change plan update. A position statement has been published by the Scottish Government that says the right things on climate change and zero-carbon targets, and it strengthens some policies and provides a vision for how we can make things work. There are some interesting things in there on the 20-minute neighbourhood concept, which is useful and could have an impact on the zero-carbon targets, and that is something that we should take forward.

The national planning framework should move away from using—as many planning documents do—words such as "could" and say words such as "will"; there is a need for stronger policy content to make sure that things happen, because the NPF will, we hope, if it is used in the right way, change the behaviours and the models to those that we need. We need to consider how we can lever in change in the models of developers, house

builders and others, because they need to think about what their housing unit looks like and what it can do, the neighbourhood that it sits in and where it is located in relation to public transport. I would like to see the NPF do that.

There are two other important points about the national planning framework. First, we need to think about it as a national document that is more influential than it has been and, secondly, as part of that, it needs to be funded and the ambitions in it need to align with the other Scottish Government resources such as the infrastructure and investment plans. If you look across the water to Ireland, you will see that its national planning framework is launched by the Taoiseach, it has Cabinet endorsement and is seen as a corporate document for managing how things are done, and linked to it is a 10-year capital investment programme. Those are the types of ambitions that we should be looking towards, along with that stronger policy content.

Andy Wightman: You mention a 10-year investment programme and, obviously, the Government has its climate change plan that has just been updated, an energy strategy and an infrastructure strategy. Elizabeth Leighton mentioned the fact that it is welcome that the fuel poverty and energy efficiency bits inside the Government are working together much more closely, but is there sufficient alignment between the infrastructure plan, climate change plan, national planning framework and energy strategy in your view, or are there potential inconsistencies between them?

10:45

Craig McLaren: I think that we have seen a growing convergence, and things are definitely starting to get better. However, there is still a need for things to be joined up more. A key fact is that some hard decisions are going to have to be made. If we are going to change how we do things, we need to change how we work and how we approach it.

For some of the other strategies, we need to start thinking along the lines of what we think the planning system should look like as well. We need to move away from the almost opportunistic and deal-making approaches, which are individualised, to a much more strategic, planned approach, which is not about the competition but more about how we work in the broader public interest, which is what the planning system does. I see the NPF as the place that co-ordinates that and integrates all those different things. There is a bit of work to be done on that, and I know that people in the Scottish Government are trying to make that work.

Elizabeth Leighton: You mentioned the merging of the programmes on housing and energy. We think that that has definitely been a positive development and it should be reflected in the delivery of the programmes, not just for insulation but for installing low-carbon heat as well. We hope that the forthcoming heat in buildings strategy will reveal that alignment with other Government plans. It is unfortunate that that strategy has not been published in time for the committee to look at it alongside the climate change plan, because we hope that the strategy will have the detail that will provide confidence that the ambition that the Government has set out will be met.

Quite a big chunk of money has been set aside for heat and energy efficiency in the infrastructure investment plan—£1.6 billion over the next five years. That kind of big, multiyear investment is welcome, but we have two points to make about it. First, it needs to be front loaded in order to maximise the jobs impact as well as lock in emissions reductions, and the current trajectory does not suggest that it is being front loaded. Secondly, it simply will not be enough, given how much public investment we will need over that five-year period. The investment is welcome, but let us look at how it can be increased over time.

Bryan Leask: The point about the connection between policies and strategies is important. For me, as someone who is responsible for managing properties on the ground, trying to achieve some of the things that are called for can be a struggle. There is “Energy Efficient Scotland: route map”, which I think will be looked at in the heat in buildings strategy, which I look forward to seeing, as I think that it will become a very important document. As an RSL, I can say that achieving a B-rated property EPC by 2032 is challenging. If I do, that would not necessarily meet the needs of the fuel poverty strategy, which has been delayed for obvious reasons but which will become very important. A lot of what we do to achieve energy efficiency does not necessarily make the property cheaper for the tenant who lives in it. We have experience and evidence that work that is done to improve a property’s energy efficiency can make it more expensive for the tenant. That is an important point—those two things do not necessarily mean the same thing.

On top of that, the new-build heat standard will be coming out. As I said before, that will look at the carbon element but not the cost element. The EPC in the energy efficiency route map is determined by looking at the cost element. In that way, there is absolutely a disparity between some of the strategies that are coming out. As somebody who is responsible for managing property and achieving all those things, I can say that trying to weave my way between them is quite

challenging. We want to ensure that we are not spending money on something at the moment that, in five or 10 years' time, we will probably have to take out again.

Andy Wightman: Thank you.

The Convener: Keith, are you there?

Keith Brown: Yes. Thanks, convener—I will try again.

I want to go back to the bombshell that we heard in the previous session about Scotland having the worst building standards in Europe. I have to say that I have not heard that being raised by any party in the Parliament. It is a bit of a shock to me, especially as it sat alongside the statement about how far Scotland seems to be ahead of the other parts of the UK in supporting energy efficiency measures. It would be extraordinary if the Existing Homes Alliance Scotland, the Royal Town Planning Institute Scotland and the Rural and Islands Housing Association Forum did not have a view on that. It would be a big omission in our plan if that is where we are starting from. I would like to hear our three witnesses' views on the veracity of that claim and its implications.

Perhaps we could start by hearing from Craig McLaren.

Craig McLaren: As I said earlier—it might have been during the time when Keith Brown's connection was lost—I am not aware of that claim. I do not know anything about that area either, because building standards form a different part of the process from planning. I do not have any more to add.

Elizabeth Leighton: I am afraid that, as the name of our organisation suggests, we are not experts on new-build properties; our focus is on existing homes. However, as I said earlier, for a long time, we have been calling for improvements to the energy aspect of the standards on new builds, because they will be the existing homes of the future. We have pointed out how we would like to see the proposals that have been introduced being brought forward. We should be future proofing for low-carbon heating systems in buildings that are being worked on now.

I am afraid that I cannot comment on the comparison of the standards with European ones, but I am sure that the committee could go back to the previous panellist to ask for further evidence.

Keith Brown: Bryan, you are my last hope.

Bryan Leask: Unlike Elizabeth Leighton's organisation, the Rural and Islands Housing Association Forum is involved with new-build property. Ten or 15 years ago, I would probably have agreed with that statement, but I am not sure that I agree now.

I know how difficult it can be to get building warrant approval on properties, particularly in Shetland, where it can be really challenging. I do not know how our system compares with those of other European countries such as England, Wales, France or Belgium, because I only build in Scotland. I honestly could not answer that question. However, I know how difficult it is to achieve the current standards.

Among the requirements is a measure called the target energy rating for the property. Within that are what are known as a TER, or target CO_2 emission rate, and a DER, or dwelling emission rate, that set minimum standards that are to be met. Then there is a standard on air tightness that concerns how well the property retains the heat that is created in it, which is challenging to meet. The level of insulation that we now need to install in new-build properties to achieve the target energy rating is high, and the cost for us to do so is increasing each year.

As I said in reply to Sarah Boyack, the process can go further. The level at which we are building in Shetland is, through necessity, beyond that set by the current building standards. Is there improvement to be made? Absolutely. Are our standards the worst in Europe? As I do not work in the rest of Europe, I am afraid that that is a difficult one to answer.

The Convener: Are you there, Keith?

It looks as though Keith Brown has disappeared again. If his connection is restored, he can come back in after Gordon MacDonald has asked his questions.

Gordon MacDonald: What does the panel think about the level of public engagement with existing home owners, given that they have the majority of housing stock? Are they aware that they need to ramp up their level of insulation and that, in the next few years, they will have to seriously consider replacing their heating systems with low-carbon versions? If not, what should happen in order to raise awareness? Perhaps Elizabeth Leighton could respond first.

Elizabeth Leighton: That is a good point, and I am pleased that this section of the draft climate change plan update contains proposals for a tailored engagement plan and a skills development plan to go hand in hand with the policies. That does not show up in other sectors, so it is a plus for buildings.

We need that sooner rather than later. For example, the cashback scheme for owner-occupiers has not been accompanied by a wide engagement plan. I have had conversations with my members as well as with friends and family, and nobody seems to know about that fantastic offer. We need engagement to go hand in hand

with promotional incentive schemes or loans, and that should be linked to forthcoming standards. Using the lever of standards or foreshadowing the standards that will come into force is the best way to drive voluntary uptake of the schemes.

I welcome the fact that there is to be a plan, and I would like it to come faster, where that is possible. Let us learn from our experience from Home Energy Scotland and the vast network of partners that are working in communities, including climate challenge fund projects, development trusts and others, who have undertaken energy efficiency projects at a local level. It was mentioned during the previous evidence session how essential it is to have that trusted neighbour—a trusted community service—that provides advice and is linked to the national Home Energy Scotland advice.

Gordon MacDonald: Bryan, do you have a view on that?

Bryan Leask: I agree that public engagement is critical. The difficulty that we have with this topic is that nearly every house is different, so how you solve the problem and deal with every house is different. We need to be careful that we do not put out information about how to, for example, install heat pumps in properties that are not suitable for heat pumps, because that could end up costing tenants a lot more money.

We need to bear in mind what we are trying to achieve, which is carbon reduction. I made the point at the beginning of the evidence session about strengthening the electricity grid to cope with that. If we are moving people off the gas network on to the electricity network, and there is a big uptake of that because of our push through public engagement, can the grid cope with that? We need to think about how we achieve that.

The plan refers to heat pumps a lot, and heat pumps absolutely have a place, but so do storage heaters. One of the witnesses in the earlier evidence session said that they would rather see heat pumps than storage heaters. I think the contrary. Storage heaters can be part of the strengthening of the network. They can act as a battery for energy storage, as more renewable generation connects to the grid. Heat pumps cannot do that. Storage heaters have a place and can help to speed up the process of increasing the grid's capacity.

Heat pumps also need a lot more maintenance than storage heaters. There was reference to embodied carbon earlier. Heat pumps need to be maintained very regularly, and they contain refrigerant gas, which does not necessarily contribute to carbon reduction. In our public engagement, we need to be careful not to push people down certain routes by putting out the story that heat pumps are the solution. Every property is different, and we need to look at them individually.

To go back to an earlier question about local authorities, there is a piece of work to be done to ensure that local authorities have the resource and the power to put in place proper guidance and advice in their areas based on the hard-to-treat properties and the properties generally in that area.

Gordon MacDonald: Craig McLaren's evidence on existing housing stock refers to

"protecting the rights of existing residents".

How do we carry out public engagement and highlight the necessity of putting in insulation and electric heating—if that is the way forward—while protecting the rights of existing residents, when we want to hit the climate change targets?

11:00

Craig McLaren: That is a good question. As Elizabeth Leighton and Bryan Leask have said, there is not a high level of awareness of some of the programmes among households. I have talked to friends and family about the issue, and they are not really aware of those programmes. I am glad that something is going to be done on that, because it is needed and will help with implementation, particularly if resources are available for that work.

More generally, we need a broader discussion at national and local level about how we live our lives. As I said, we need to change what we do and how we do it. There are opportunities for us to think about how we need to change our behaviours, for example. It is not just about what we do to our house; it is about how we use our car and how we go shopping. We need to have a debate about a lot of different issues.

At national level, there is an opportunity to do that through the discussion on the national planning framework—although, of course, I would say that. That discussion can give us time and space to reflect on the issues and to consider the implications and what we need to do. As members will know, the draft national planning framework 4 will be laid before Parliament in September, so there will be a real opportunity to have that discussion.

We need to think about that at local level, too. I mentioned earlier that there are opportunities for early engagement and to start thinking about how our places work for us and how they should work, and about what we need to do and what we need to change. There should be an inclusive and honest debate about what that means for people and what compromises we might have to make,

but we should also take an ambitious approach so that we can actually reach the targets.

Gordon MacDonald: You just said that we need to look at how places work for us and for the greater community. In your written submission, you say:

"Policy and taxation should also prioritise building reuse and refurbishment over demolition and rebuild, where lifecycle emissions would be lower as a result."

Can you expand on that a wee bit? Which policies on taxation would you like to be changed?

Craig McLaren: As was mentioned earlier, VAT applies to renewal but not to new builds. There is perhaps a need to equalise that to ensure that we have a level playing field. Incentivisation has also been mentioned—grants or loans could be used to make sure that renewal happens. The basic need is to ensure that we reuse what we have rather than tear things down and start again. We also need to think about how we design our future housing and communities to ensure that they are adaptable. There will then be less need for them to change radically if we need to change how they are used.

There is an element of taxation involved in all that, but it is also about policy and practice.

Gordon MacDonald: Thank you.

The Convener: Before you go, Gordon, I think that Bryan Leask was looking to come in on one of your questions.

Bryan Leask: Yes—it is on the point about protecting the rights of existing tenants, which is really important. When we do the public engagement, whatever form it takes, it is important that we give people all the information that they need. There is a risk that we go down the route of simply saying that the changes are important for carbon saving, when the reality is that, if we move somebody from a gas network to an electrical network—whatever form it takes—that will in effect double the cost of running the property.

We have done a lot of work to gather evidence on that. At present, if someone's property moves from gas to a heat pump, that will cost them an extra £700 or £800 a year. There is a risk in moving people from gas. It might well be a good carbon-saving measure, but the number of people who would then move into fuel poverty could be substantial.

Gordon MacDonald: That is a very good point—thank you.

The Convener: I will bring in Alexander Stewart next.

Alexander Stewart: A lot that is very pertinent has been covered in this session, but I will ask Craig McLaren about possible changes to permitted development rights that could be effected in order to ensure that we have energy efficiency through, for example, heat installations. Should that happen in conservation areas?

Craig McLaren: Obviously, there is a balance to be struck in conservation areas. There is a general point about how we deal with areas or buildings with historical or architectural interest. I know that Historic Environment Scotland has been doing work on that and is looking at how we can adapt while keeping the key qualities of some of those areas and buildings.

In some ways, it is not a one-size-fits-all policy. Making it work may depend on individual circumstances. I think that some permitted development rights would work across all areas, but we need to be very careful about that. Obviously, permitted development is handled much more carefully in conservation areas, and listed building consent must be sought for listed buildings. Striking a balance is key.

Alexander Stewart: Okay. I will go back to Elizabeth Leighton.

In the first session, I asked about initiatives in rural communities, and about recognising the challenges that rural areas face in reducing emissions. The stock in rural areas is, potentially, more difficult to heat and involves more complex issues. It would be good to get your view on the initiatives that are less effective in rural communities.

Elizabeth Leighton: Living in a rural area, I am familiar with that situation.

We have called for a rural transition package—which would involve skills and the promotion of incentives—to be part of public engagement, in order to ensure that rural areas are not left behind, because we think that they have particular needs. For far too long, they have been seen as belonging in the "too difficult" box—too expensive, too hard or too complicated. However, over the past few years, Historic Environment Scotland has done extensive research on how to upgrade traditional homes, and has found good ways of doing that. A lot of case studies are available. Home Energy Scotland has a network of individuals who have upgraded their homes and are willing to have them visited by others who want to understand what else can be done.

There are also examples of rural communities that have found innovative ways of financing upgrades in their local areas. You have probably heard of the example of Fintry using its community benefit money from a local wind farm to upgrade every home in the village. There are opportunities, but the issue needs particular focus from the fuel poverty and energy efficiency programmes.

Looking ahead, there will be a focus on rural areas, which are seen as low-hanging fruit because they are off gas. We should be looking at a target date for phasing out replacements of high-carbon fossil fuel boilers in rural areas, and incentivising and promoting that so that a phase-out programme is happening by 2025—supported, perhaps, by a scrappage scheme.

If I may, I will pick up on a comment that Bryan Leask made earlier about gas versus heat pumps. Here in Scotland, Warmworks is undertaking an interesting trial, with funding from the Department for Business, Energy and Industrial Strategy. It has had some interesting results: if a property is well insulated—if the fabric-first approach has been done—there is nothing to say that having a heat pump would put the householder in a worse financial position than would gas. That research is still under way, and is something to look out for. I can send links to information about it.

Alexander Stewart: To touch on Bryan Leask's comments about maintenance of building structures, should we think again about our approach to maintaining a building throughout its lifespan, so that there is an opportunity to develop efficient and effective forms of energy conservation? Could we use materials that are much more suitable for rural environments such as the one that you come from?

Bryan Leask: It is recognised that the cost of doing anything in rural areas is a lot higher, as was clearly shown by the work that was done on the minimum income standard for remote rural Scotland. Shetland probably has the highest cost element in Scotland. To put in context what we do in relation to maintenance, a piece of work that is currently being done shows that the cost of construction in Shetland is between 30 and 40 per cent higher than it is in mainland Scotland.

We should also bear it in mind that Shetland is a group of islands. I go back to my earlier point about maintenance of components. For example, if we were to install a heat pump on Unst, which is two ferry trips away from where our maintenance team is located, that might produce a carbon saving. However, we are essentially just moving that carbon cost from the component that produces the heat to the back of the plumber's van that has to travel 100 miles, on two ferries, to maintain it. In addition, because heat pumps need higher levels of maintenance, that has to be done every single year. Therefore, although we are currently discussing buildings, we cannot forget the maintenance aspect, because that is imbued with a carbon cost. Until we reduce or completely remove the carbon element—vehicles, ferries and all the other aspects—it is essentially just being moved from the heating equipment to the maintenance team's vans.

We must aim to ensure that we can bring existing properties up to the level to which we now build new stock. However, the challenge lies in how we can do so while people are still living in those properties, in a way that is not to their detriment. My next comment applies not so much to our organisation, as a landlord, but more to the private rented sector and home owners. Although there might be a long-term benefit for people in carrying out such work, why would they do it unless there is an incentive? In many cases, the capital cost is very high. We could say that they are saving on the carbon element, but we need a carrot to go along with the stick. We need to be able to provide an incentive for people to install a form of energy that will help us to achieve the plan's ambitious targets.

In partnership with SSE, we worked on the northern isles new energy solutions—NINES—project in Shetland, on which the University of Strathclyde published a report. The project created a smarter grid network that used houses with storage heaters and hot-water cylinders as a bank or battery system so as to allow more renewables on to the grid. As we create more renewables, we need to find ways of doing that. The project showed that its approach offered a benefit for the grid controller, which for us locally is SSE. Renewable technologies also provide a benefit for people. For example, if they install wind turbines they can receive payments off the back end of that. However, in such models there is no incentive for the home owner, who will still be paying 15p per kilowatt hour for that energy. Some of the benefit that is being received in that market therefore needs to be passed on to the people who are creating the ability for new systems to be used.

The Convener: Sarah Boyack has a supplementary question.

Sarah Boyack: I want to follow up on Bryan Leask's final point about the grid. Your comment about the local opportunities for turbine use is the first time in our discussion that we have heard wind power being mentioned. No one has mentioned solar energy forms of producing heat or electricity, either. The retrofitting of individual houses for those might be an issue. Earlier, Craig McLaren mentioned the wider forward planning approach, and Elizabeth Leighton has described the community approach to solar energy. Would either of you like to comment on that aspect? Why is solar energy not part of the mix?

11:15

Elizabeth Leighton: A lot of the conversation has been dominated by heat pumps because they will, without a doubt, be a big part of the overall solution, but there will be other solutions, such as

the use of solar. Solar is already being used by some housing associations to meet their targets. I think that Stirling Council has an average of band B through using a combination of solar and heat-battery systems. We have not talked as much about heat networks, which are expected to provide 20-plus per cent of heat need. A variety of approaches will be needed. I emphasise that there are opportunities for carrying out deep retrofits that result in very little need for heat at all. Some housing associations are testing the possibility of having EnerPHit or Passivhaus standards for retrofit housing.

We should bear it in mind that we should be providing better, warmer heating solutions for people. Bryan Leask is spot on about the affordability issue. A lot of that is about the unlevel playing field between gas and electricity. Subsidies at UK level mean that, in the meantime, Scotland has to compensate for that by covering up-front costs. However, in most cases, running costs should be affordable. A better heating solution should be aspirational and something that people look forward to having, as is the case with electric vehicles. It should involve a better way of living and a healthier home.

The engagement strategy should not just be about raising awareness. It is about providing people with support and holding their hands through the process of thinking about such a heating system, installing it and using it, because we know that it is only by understanding how best to use the system that people will get the maximum benefit in terms of carbon, savings and comfort.

Sarah Boyack: Does Craig McLaren have a view on that?

Craig McLaren: Solar should certainly be part of the mix. As you said, most of the discussion, particularly from a planning perspective, is about wind and the divided opinions on where we should be siting wind turbines and wind farms. Solar has a role to play, and planning can help to facilitate that. The national planning framework can promote solar, and local development plans can have a go at identifying appropriate sites.

At the local level, there is a role for permitted development rights. We should look at how we can provide more localised solar solutions for our houses. We work with different elements of street furniture. People will see solar being used for parking meters, signage and so on. We should ensure that such things are permitted in the right circumstances, so that they can be made to work effectively.

The Convener: I thank members for their questions, and I thank the witnesses for identifying some key issues. We have an evidence session with the Convention of Scottish Local Authorities on 17 February, when we will discuss the role of local government in reducing emissions, which was mentioned a number of times today. Our findings will be in the form of a letter to the co-ordinating parliamentary committee.

That concludes the public part of the meeting.

11:19

Meeting continued in private until 11:43.

Published in Edinburgh by the Scottish Parliamentary Corporate Body, the Scottish Parliament, Edinburgh, EH99 1SP

All documents are available on
the Scottish Parliament website at:

www.parliament.scot

Information on non-endorsed print suppliers
is available here:

www.parliament.scot/documents

For information on the Scottish Parliament contact
Public Information on:

Telephone: 0131 348 5000
Textphone: 0800 092 7100
Email: sp.info@parliament.scot

The Scottish Parliament
Pàrlamaid na h-Alba