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OFFICIAL REPORT AITHISG OIFIGEIL

Net Zero, Energy and Transport Committee

Tuesday 21 June 2022



Session 6

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NET ZERO, ENERGY AND TRANSPORT COMMITTEE 0th Meeting 2022, Session 6

CONVENER

*Dean Lockhart (Mid Scotland and Fife) (Con)

DEPUTY CONVENER

*Fiona Hyslop (Linlithgow) (SNP)

COMMITTEE MEMBERS

*Natalie Don (Renfrewshire North and West) (SNP) *Jackie Dunbar (Aberdeen Donside) (SNP) *Liam Kerr (North East Scotland) (Con) *Monica Lennon (Central Scotland) (Lab) Mark Ruskell (Mid Scotland and Fife) (Green)

*attended

THE FOLLOWING ALSO PARTICIPATED:

John Cunningham (Comhairle nan Eilean Siar) Jeremy Gorelick (Green Finance Institute) Nick Halfhide (NatureScot) David Harley (Scottish Environment Protection Agency) Emma Harvey (Green Finance Institute) Ben Howarth (Association of British Insurers) Professor Simon Parsons (Scottish Water) Julie Waldron (City of Edinburgh Council)

CLERK TO THE COMMITTEE

Peter McGrath

LOCATION Committee Room 2

Scottish Parliament

Net Zero, Energy and Transport Committee

Tuesday 21 June 2022

[The Convener opened the meeting at 09:03]

Decision on Taking Business in Private

The Convener (Dean Lockhart): Good morning, and welcome to the 21st meeting in 2022 of the Net Zero, Energy and Transport Committee. We have received apologies from Mark Ruskell MSP.

Under agenda item 1, we will consider whether to take in private items 3 and 4. Item 3 is consideration of the evidence that we will hear today, and item 4 is consideration of the draft report on the committee's energy price rise inquiry. Do we agree to take those items in private?

Members indicated agreement.

Role of Local Government in Delivering Net Zero

09:03

The Convener: Our next agenda item is an evidence session as part of our on-going inquiry into the role of local government and its cross-sectoral partners in financing and delivering a net zero Scotland. We will hear from two panels, the first of which will look into co-financing and how local authorities can secure private investment in projects to deliver the transition to net zero.

I welcome our three guests, who join us remotely: Jeremy Gorelick, who is a strategic adviser at the Green Finance Institute; Emma Harvey, who is a programme director for the coalition for the energy efficiency of buildings at the Green Finance Institute; and Ben Howarth, who is a manager for climate change and open data policy at the Association of British Insurers.

Good morning, and thank you for joining us—it is much appreciated. We have allocated up to about 70 minutes for the session. We will move straight to questions. My first question relates to a report that has been published by the Green Finance Institute, which estimates that 82 per cent of all United Kingdom emissions can be influenced by local authorities. The report, which was published in April, says that pathways and mechanisms to finance the necessary projects at local authority level have historically not been in place.

I would like to explore with each witness the main reasons why you think that leveraging private capital into local authority projects has been challenging so far. The Green Finance Institute and the ABI have been doing a lot of work in the area. What are the main challenges? What solutions might we see in the months and years ahead?

I saw Jeremy Gorelick nodding, so I will start with him before we hear from Ben Howarth and Emma Harvey, who should just indicate in the chat box if they want to come in.

Jeremy Gorelick (Green Finance Institute): Good morning. I will take a couple of minutes to give some background, so that everyone gets a sense of who I am and the place from which I am speaking.

It is an honour to speak to the committee today and to provide insights into how we might collectively help Scottish subnational governments to achieve their net zero aims. I was invited to give evidence based on my position as the senior strategic adviser for the Green Finance Institute, which is a position that I have held for more than two years, but my credentials are far deeper. I have spent more than 20 years in financial structuring, mostly supporting subnational governments to access the money that is required to deliver capital-intensive infrastructure programmes. I wrote my doctoral dissertation on the prospects for municipal bond issuance for developing countries.

Although I have spent much of my career working in middle-income countries—as a point of reference, I join you today from Indonesia; I am normally based in South Africa, although I travel quarterly to the United Kingdom to work with my colleagues—I have noted that the problems that subnational governments face in their efforts to access money across the world, in particular in the search for money for climate-smart projects, are fairly uniform. That is really the meat of what I want to share with you today.

Despite the fact that we recognise that local governments play a critical role, they face significant challenges. First, there is a significant lack of in-house technical expertise. Secondly, there is a lack in-house financial expertise. Thirdly, there is a lack of familiarity with the appropriate tools to access capital for long-term, longrepayment projects.

My first point today really addresses the challenge on the demand side for money and the financial ecosystem in the relationship between subnational governments, which we call seekers of capital, and financial institutions, which are the sources of capital. Over the past five years, working in collaboration with entities such as the C40 Cities Climate Leadership Group, the Rockefeller Foundation, and most recently in a collaboration between Innovate UK and the GFI, I have had the chance to confirm those obstacles at first hand, working directly with a number of local authorities, one of which serves the largest city—it is arguably one of the most climate-ambitious cities—in Scotland.

To be as comprehensive as possible, my team engaged Arup engineering consultants to perform a deep-dive analysis of the entirety of that city's climate-smart portfolio. We identified 11 projects that had progressed beyond the conceptual phase. However, fewer than half of those projects were in a state of advanced feasibility and none was shovel ready or prepared to accept capital would be immediately deployed that for construction purposes. Further-this was a major concern-there was no clear understanding of which instruments would be most appropriate to match against the useful life of the assets with financing structures.

The challenge is not unique. Each of the UK cities that we analysed demonstrated the same difficulties. On the demand side for finance, there

is a tremendous challenge to do with the expertise of local authorities.

There is another challenge on the supply side of the financial ecosystem—that is, the sources of capital. As part of the Green Finance Institute's broader work, I am leading a team that is supporting the Greater London Authority as it prepares to launch the country's first green municipal bond. I am pleased to share that we have hosted multiple one-on-one engagements with the country's largest institutional investors and received soft commitments to participate in the inaugural issuance. However, those investors are frustrated, as there seem to be very few options to allow them to participate directly as lenders to subnational governments.

We have a challenge on both sides. There is a challenge on the demand side, to do with the ability to articulate projects that are well suited for private sector participation, and there is a challenge on the supply side to do with the right sorts of mechanism to use. That is particularly because the more traditional troublina. concessionary sources of finance are reaching their lending limits—for example, the Public Works Loan Board is nearly at the top of its debt capacity as far as its current funding is concerned-and other lenders are still nascent. The UK Infrastructure Bank, for example, has celebrated its first anniversary, but is still not lending at pace or scale.

For those reasons, it is important to encourage the committee and others to consider new ways of answering the four challenges, that is: in-house technical expertise; in-house financial expertise; better appreciation of financial products by subnational governments; and new financing mechanisms that encourage participation from a wider range of entities. I hope that, during today's session, we can talk through what some of those direct solutions might be that are well aligned to large and small subnational governments across Scotland.

As I hand the virtual podium to my fellow panellists, I want to highlight one extremely important point. I have been talking largely about the concept of local authorities as project sponsors, and yet my colleague, Emma Harvey, will talk about them in the different but equally important role of project enablers. If we couple the idea of local authorities as project enablers and local authorities as project sponsors, we find that those two account for that often-cited figure of 82 per cent of all greenhouse gas emissions being within the scope of the influence of local authorities. That underscores the importance of local authorities in ending the UK's climate change challenge, particularly in thinking about what that could mean for Scottish subnational governments and local authorities.

With that, and because I know that I have only a short amount of time to answer the question, I thank you and look forward to continued engagement during the meeting.

The Convener: Thank you, Jeremy. That was a useful oversight, and you raised a number of issues that we will explore during the meeting. You said that local authorities are in effect project borrowers, sponsors and enablers, in that they are able to quarterback financing and other arrangements that can tackle climate change at a local level.

I will bring in your colleague, Emma Harvey, to talk about that second aspect of local authorities acting as enablers.

Emma Harvey (Green Finance Institute): It is a real pleasure to be here today. To provide a bit of background on why I am going to talk about local authorities as enablers of projects and of finance, I will just give a quick overview of some of the work that we have been doing through the coalition for the energy efficiency of buildings.

To date, the coalition has brought together more than 400 experts from the built environment sector, finance, business, academia, local government and central Government, with the aim of exploring residential buildings, the barriers to retrofitting them, and how finance can help to overcome some of those barriers. During the past two years, we have been working through various data solutions, opportunities to scale up existing financial solutions, and brand new financial solutions that draw on best practice internationally and brand new ideas.

I mention that because our work is focused not on how local authorities can raise and then deploy capital but on the role that local authorities can play to attract private finance into their local areas. That specifically refers to finance that can be used by local citizens. The examples that I have provided are focused on buildings, but we have expertise in transport and nature.

As an example, we are just about to start a collaboration with one of the major combined authorities in the UK to pilot five financial solutions in its areas that will bring in mortgage lenders and institutional investment that will be deployed directly to citizens. The local authority will not be acting as a middleman or provider of capital. Instead, it will use its trusted relationship with citizens and its deep knowledge of the decarbonisation activities that are required in the area to help to direct finance most efficiently. For example, we will be working with local and national lenders, mortgage brokers and other organisations that are connected with consumers

to raise awareness of the role and the opportunities that green mortgages provide.

Green mortgages can be used to fund energy efficiency improvements in a building or to purchase a building that is already energy efficient. The major barrier to the market scaling at the moment is the lack of consumer awareness that such products exist. A local authority-backed campaign to raise awareness of those financial solutions can not only support citizens to access that finance but help to create a thriving market in the UK, which is one of the leaders in green mortgages.

Another example that I would point to is something that we like to call property-linked finance, which in the United States is known as property-assessed clean energy finance. The finance is linked to a property rather than the property owner, so it helps to overcome the payback period barrier that many home owners experience when they retrofit their property.

We think that that can be introduced in the UK through local land charges. Local authorities are some of the designated authority bodies for bringing local land charges into effect. Therefore, if we wanted to introduce a property-linked finance scheme in the UK, local authorities would play a critical role in introducing the enabling local land charges that can link finance into a property, but they would not have to be involved in capitalising the scheme. That would be achieved by institutional investors and administered by thirdparty bodies.

Those are a few examples of how local authorities do not just have to raise and deploy capital and that there is a huge swathe of citizens, companies and businesses under a local authority's jurisdiction or within its geographical region that can be helped by the local authority bringing in private finance. I am sure that we can dive into that in more depth.

09:15

The Convener: Thank you—that was a great introduction. You are absolutely right that we want to explore some of those issues.

I will bring in Ben Howarth. His members have long-term capital. I do not have the figures in front of me, but they go into trillions of dollars or pounds. Clearly, that supply of capital is available. I would like to get his perspective on how best local authorities and partners working with them can get access to that finance. Any thoughts on how that might work in practice would be fantastic.

Ben Howarth (Association of British Insurers): Like the other panellists, I thank you for the invitation to speak. As you say, the ABI represents some of the biggest institutional investors in the UK. We also represent the general insurance sector, which will also play a key role in the matter, but I will focus on the investment side for now.

This might seem like an oversimplification, but there are two different things that local authorities can do. An institutional investor that is considering the portfolio of investments that it will make over the next five to 10 years, for example, realistically does not want to go round all 32 local authorities in Scotland, speak to them individually and have slightly different variations of the same conversation. Therefore, the more consistency that you can have in the technical financial instruments that the previous witness spoke about the better. That is not only to aid decision making for individual investors. For many investments, particularly those that ABI members make, regulatory approval will be required. Therefore, the more consistency that you can get in the structures that underpin those investments, the better.

Because our membership is investing people's pension assets, they are at the lower end of the risk scale. They are not looking for high-risk and short-return investments; they are really looking for long-tail investments that deliver a steady and predictable return. One thing that local authorities can do to help our members is to think strategically about the range of investment opportunities that are available and the different kinds of investors that will be attracted to them.

Our members will have some appetite for some of the bigger infrastructure projects and schemes where there is a clear long-term business case, but they also have an appetite to invest in some of the supporting and connecting infrastructure. For example, electric vehicle charging points are potentially a really attractive investment opportunity for our members. It is not just about big schemes and projects; it is also about all the stuff that underpins them, and that is where the local authorities kick in.

My point is that the more consistency we have in the technical financial instruments, the better. Then individual local authorities can add value by understanding their local areas and making a case for specific investments. If local authorities can work together on the structures, that will help. Then they can each bring in the needs and priorities for their local areas.

There are plenty of other things that I could come back to, but I will make one final point. At the moment, the Government is consulting on transition plans. All ABI members will be required to produce a transition plan for the next five to 10 years. The more that individual local authorities can do to collaborate with that initiative, the better. If they could produce their own transition plans and set out clearly where they are likely to build a particular technology into their local plan or look for investment in a particular area, that can give investors some advance insights so that they can manage the situation and understand where the opportunities are likely to arise in the next few years. They should also be transparent about the things that they do not know in order to build collaboration.

There are plenty of things that we can come back to, but the main points are collaboration on the financial instruments and then a really clear transition plan so that investors can start to plan ahead.

The Convener: Thank you. I will come back to one of the issues of scale that you mentioned. However, first I want to follow up a point with Jeremy Gorelick, who mentioned green bond financing, which is taking place in London. I am not sure which entity is the issuing entity, but I understand that the Green Finance Institute is promoting a local climate bond pledge with some local authorities across the UK. From the papers that we have been given, I understand that there are seven signatories to the bond arrangement. However, so far, none of those are Scottish local authorities. What engagement has the GFI had with Scottish local authorities more generally and in relation to the local climate bond pledge? Other than in London, do you see that mechanism being used in the months and years ahead?

Jeremy Gorelick: I will very happily answer the London question, and I will turn to Emma Harvey to talk about the LCB side, because that is part of her workstream. However, before I respond to the question about the GLA and the green municipal bond, I want to pick up on something that Ben Howarth said on the question of standardisation and how we scale up to large enough instruments. That is one of the meaningful roles that Government can play. One of the challenges that many subnational governments and local authorities-especially the smaller ones-face is that they do not necessarily have the technical expertise. Therefore, if there was a way to roll out technical standardisation, that would allow institutional investors to have a degree of confidence in the instrument in which they are participating.

I also feel that there is potentially a role for any Government or public entity to stand in as a guarantor to provide that sort of uplift for credit enhancement, so that it would be something that institutional investors would find worth while. It might be important to consider both those things.

It is anticipated that the GLA's prospective green municipal bond will use the proceeds for three different areas. The first will go to support the work that Transport for London is doing; the second will be for a broad mix of different public entities that are held within the GLA group; and the third will be to provide opportunities for some of the boroughs that make up the GLA to participate meaningfully and to be able to borrow.

The green municipal bond is a traditional capital markets instrument that allows and enables institutional investors to participate. It is likely to be between £500 million and £600 million, so it will be a fairly sizeable transaction. It will definitely not be the size of sovereign bonds, but given that it will be the inaugural issuance for the GLA, that is the size that it feels comfortable with, and it is responsible, based on the pipeline of projects that can be invested in. For me, that is a direct contrast with some of the LCBs, on which I turn to Emma to provide a bit more clarity.

Emma Harvey: Local climate bonds are one of the solutions that the Green Finance Institute has been supporting for several years. I will provide a quick background on them for those who are not too familiar with them. Local climate bonds were pioneered by Abundance Investment, which is one of the members of our coalition. The mechanism provides an opportunity for local authorities to raise capital via, in effect, a crowdfunding platform. What is really important about that is that it allows local citizens to invest in the local climate bond for as little as £5, and they can see the proceeds that are raised through the bonds being invested in climate-positive activities in their local area.

These funds can be raised at a lower rate than that offered by the Public Works Loan Board, which is the primary source of capital for local authorities. However, the most important aspect of local climate bonds is that they have very high levels of engagement from citizens and they help to drive citizen engagement on local authorities' decarbonisation plans. To date, we have seen six issuances, predominantly in mid and south England. We have also launched our pledge campaign, which encourages local authorities to pledge to issue a local climate bond and therefore signal their intent. It also gives them an opportunity to start to engage with local citizens ahead of the issuance. Nine organisations have pledged to issue local climate bonds.

This is a relatively new solution. When we started working with Abundance Investment, only two local climate bonds had been issued.

In the early days of local climate bonds, one of the challenges of adoption was their lack of a track record. Local authorities were not clear about whether they would fill their subscription, whether citizens would be interested, or whether the process would be simple or too tricky. Now that we have had six issuances, we have seen them be very successful and become subscribed quickly. There have been high levels of citizen engagement on the decarbonisation agenda, and there are a few brilliant examples of citizens having foregone their annual interest payments so that their interest could be reinvested into further environmentally positive activities, such as rewilding in the local area.

The other challenge is engagement and trying to get past the relevant internal approvals for organisations to either pledge or issue a local climate bond. Therefore, we would welcome further engagement with councils in Scotland in order to introduce them to the concept of local climate bonds and to then have further conversations or connect them with Abundance Investment, which manages the local climate bond platform.

It is a nascent market, it is getting a lot of traction and it is an attractive piece of the capital stack for local authorities, but we need to continue to bang the drum and have deep and meaningful engagement with local authorities to help them to get more comfortable with this solution.

The Convener: Thank you, Emma. I have a couple of brief supplementary questions. What is the average size and scale of the LCBs that have been issued? Are they almost like a shadow municipal bond market, such as you would see in the US, albeit presumably at a smaller scale? Are they listed capital market instruments—are they freely tradeable—or are they less liquid compared with what you would typically see with the GLA bond issue?

Emma Harvey: Those are really good questions. With regard to the typical size that we have seen to date, the first few were about £1 million, and we have seen a couple that are $\pounds 500,000$ but with ambitions to continue issuing. There is a ceiling that you can hit with regard to the number of local citizens who are able to invest into a local climate bond.

In terms of how they operate, they are not a bond in the traditional sense—they are a crowdfunding instrument. I believe that there is the opportunity for investors to trade their investment back into the Abundance Investment platform, but it will operate not like a shadow market but as an entirely separate entity and asset class. We would be happy to share further detail on that with the committee at a later stage.

The Convener: That is great, thank you. I have taken up more than my share of time, so I will bring in other members, starting with Fiona Hyslop.

Fiona Hyslop (Linlithgow) (SNP): Thank you for joining us this morning. I will come to Jeremy Gorelick first. One of the challenges seems to be that the amount of due diligence and financial readiness required for an investment of $\pounds 1$ million involves the same effort as that needed for a package of $\pounds 100$ million. There seems to be a gap between the propositions at a local level and the desirability for investors, and one of the potential jobs of Government is to facilitate that.

The First Minister of Scotland will be chairing a proposed investor group, which will marshal the investors. I declare an interest because I launched it in 2020, but we have a green investment portfolio, which is currently worth £1 billion and involves 10 projects, with the promise of an increase to £3 billion. Those are the investable propositions. Earlier, you talked about some of the projects being at the concept or feasibility stage, and the need for an agreed mechanism so that there is almost an authority to invest because they have hit certain benchmarks to make them investable. Scotland is a country of 5 million people and has a devolved Administration. Could the role of national Government be to help local authorities to get to that stage of investability?

Jeremy Gorelick: That is a great question. Absolutely. To me, one of the most important roles that Government should be playing is to help those projects to get beyond the preliminary concept or feasibility stage to full detailed engineering design and full financial sustainability.

There are some clear examples of that in the US. For example, the Connecticut Green Bank has been able to mobilise billions of dollars because it has played that role of supporting projects to get to a level of financial readiness and, in effect, to be shovel ready.

09:30

One of the biggest challenges is that, as those of you who are financiers will know, borrowers do not want to take on money that they cannot immediately deploy, because there is a carry cost from the second that they draw down that money. Therefore, they need to be sure that, when projects have the ability to receive money, they can immediately start to build with that money or do whatever is required to generate the revenue so that they can service the debt and pay back their sources of capital.

I have one word of caution or caveat, which is about one of the big challenges. When we aggregate, although it is terrific to hear that there is £1 billion or upwards of £3 billion of projects, the problem is that, oftentimes, those projects are not all simultaneously ready to deploy money or to have the funds come back as user fees or whatever as the source of repayment. My big concern is that, despite the fact that it is often great to be able to say that we are coming to market with a large package of issuance, sometimes the laggards end up piggybacking and getting a free ride because of the earlier-stage projects that are already generating revenue. There is an important balance to strike to make that work.

On that point, in some countries, rather than go to the market with a full issuance, there is an intermediation body that goes out and borrows on behalf of a number of local authorities or projects. That body brings in funds and acts as, let us say, a municipal development fund or a specific agency that has the availability and mandate to intermediate, and then to onlend and collect the funds back. That means that local authorities are not sitting with an obligation on their books but without the ability to deploy the funds; instead, it is structured in a certain way.

If that is helpful and sounds as if it aligns with what you would like to see, I am more than happy to share some papers that I have written on the topic as well as some general thinking on that from around the world.

Fiona Hyslop: That would be helpful. We are constrained in the amount that the Scottish Government can borrow, but there might be possibilities if we are creative about how we look at things with regard to local authorities.

In relation to the local authority role, I have a question for Emma Harvey. My colleague will go into some of the skills that are required, but we need something almost like a regulatory standard to achieve investability. There is a difference between a project and the process. What policies and mechanisms can be put in place so that local authorities can achieve that standardisation to help scale up the level of investment opportunities for them?

Emma Harvey: Again, I will come at this from the perspective of financing within a local authority. I am sure that Jeremy Gorelick will have further considerations on how capital that is raised and deployed by local authorities can support investment.

On standardisation, I will draw on some of the points that Ben Howarth mentioned about dialogue among local authorities through formally convened forums where they can share best practice. For instance, we have the UK cities climate investment commission and the Scottish Cities Alliance, which are sharing best practice and ideas among organisations and local authorities. There is also some of the work that we have been doing, through the coalition for the energy efficiency of buildings, on green mortgages or property-linked finance. It can be really important to be able to share that and have deep conversations with local authorities.

Local authorities have set themselves regulatory standards, ambitions and targets, perhaps because they have accepted that there is a climate crisis and have set particular targets in their areas. That can help to provide an impetus to get towards net zero. As I say, my work focuses much more on the enabling role that local authorities play. From our perspective, we are testing some of the financial solutions within an individual local authority to try to get lessons that can then be shared more broadly. Sometimes, a big bang approach across all local authorities can operational and implementation lead to challenges.

On Jeremy Gorelick's point, you can have these large facilities that deploy capital, but the first movers can be penalised by having to go through all the teething pains while the laggards can benefit from the fact that all those challenges have been worked through.

From our perspective, it is really about piloting at a smaller scale, with individual local authorities, and identifying what works. It is then about working through which local authorities want to be involved in such pilots and working with the private finance sector to understand where its interests lie.

I am sure that Jeremy will be able to talk a little bit more about some of the standardisation approaches that his research has thrown up. However, coming at it from our perspective and looking at the enabling role that local authorities can play, we think that there is a real need to test, develop and then scale.

Fiona Hyslop: On the testing, we have had a great deal of focus on a place-based solution to net zero and it was interesting that you were talking about the role of local authorities not just on the demand and supply side but on the enabling side. On the private sector side—home ownership, for example, and green mortgages—local authorities may not see that they have a key role in helping to promote that in a place-based, street-by-street process. Is that something that you mean when you talk about local authorities enabling and leading on the information sharing?

Emma Harvey: Absolutely. Anecdotally, we have heard that when retrofitting schemes or financing schemes have a local authority badge on them, it acts as a sort of endorsement badge and there is up to five times more engagement from citizens in those schemes.

An example from the UK is something called Solar Together, which is a demand aggregation scheme. Citizens within a particular region are able to take part in a scheme where they can sign up to have solar panels put on their roof and when a certain number of households are signed up for the scheme—let us say that it is 100 or 200—the scheme administrator can then go out and bulk purchase the technology, bring in economies of scale, and mass-install the technologies with all the appropriate guarantees.

That has been very successful to date, partly because it has been sponsored by local authorities. They have given it the seal of approval. It helps to bridge the discussion between private finance or private decarbonisation schemes and citizens when there is an endorsement of a scheme from local authorities in effect, a quality tick—so yes, we need local authority involvement in easing the transition of these quite exciting solutions into the public psyche.

Fiona Hyslop: Thank you. I think that the committee is looking forward to visiting Linlithgow, my home town, which did a community bond on solar panels, although it was on a very small scale.

I will move on to Ben Howarth. Investors are looking at rewards. I suppose that that is about the mechanisms and the financial packages and products that would be helpful to bridge the gap between clear demand for net zero investment and supply of that investment.

You also talked about standardisation, which gives some comfort to investors. What would they be looking for, exactly? You talked about low-level long-term rewards and returns to your investors. What shape would that take and what policies and mechanisms need to be put in place at local authority or Scottish Government level to enable those products to be developed? Are there existing products that you would like to use for investment?

Ben Howarth: The examples that witnesses gave earlier of specific mechanisms and bonds are the sorts of things that ABI members are looking for—in particular, green municipal bonds.

Regulation has been mentioned. One of the biggest things that policy makers can do right now is think about not just the regulation for the people providing the technology but the regulation that the investors face by the Bank of England and the Financial Conduct Authority.

One of the challenges that members face when investing in infrastructure is that it can take a long time to have a new asset class approved. Some of the onus is on ABI members to demonstrate that they understand the asset class and have properly thought about it within their mix of investments. However, in designing a new investment opportunity, the earlier we think about how it will, as an asset class, get regulatory approval from the Bank of England, the better. That could really help investors to move forward with confidence.

Also, that prevents there being a practical delay. When we have something that we ideally see as being strategically significant in delivering net zero, we do not want the investors to come in and say that they are really interested in that asset class and think that it is appropriate, but will have to wait six months, 12 months or two years for asset class approval, by which time other investors might have swooped in or the opportunity has been lost because people have not been able to get assets moving. A practical step that the Scottish Government and, to an extent, local authorities could take would be to make sure that something that is seen to be strategically significant-particularly if it is infrastructure-has regulatory approval at the financial end.

The other point is that it is necessary to think about where the returns will come in the short term and in the long term. To go back to the point that I made earlier, in the short term, a lot of pension funds will not be looking for massive returns straight away, but will want to guarantee that they will get a steady and predictable stream of income. That is to ensure that they will be protected against things such as a number of policy holders choosing to move out of a fund each year. They need to be able to meet those claims. If people move out of a defined contribution pension scheme, the funds will have to be available to finance that, so pension funds must have a certain amount of predictable capital that they can raise each year. In the longer term, if they know that they will get steady and predictable growth in their technology, that will be deemed to be a suitable investment.

For our members, it is certainly not a case that very large returns must be provided straight away; it is about demonstrating a degree of predictability. In the short term, where there is no obvious clear market mechanism to drive returns, that might involve the Government providing guarantees that might get a scheme through the first five to 10 years then, later, moving to a purely market solution.

Those are ideas that we would look at. Again, if those things were supported by the Government, making sure that there was approval for an asset class would enable investors to have it approved by the financial regulators.

Fiona Hyslop: Given that financial regulation is reserved to Westminster, we can encourage mobilisation on a regulation system that will meet net zero. Within Scotland, we can look at standardisation of infrastructure products, in particular. That is really important.

Emma Harvey raised the issue of what standardisation would look like. I invite Jeremy Gorelick to give us an indication of that. If you

cannot do that just now, it would be helpful if you could follow up in writing. We need to think about how we get appropriate investments for investors at the right time. I was very taken by your remark that they must be investor ready. Can you tell us a bit more about what you think is required as regards standardisation of an asset?

Jeremy Gorelick: Absolutely. When it comes to standardisation, I am often struck by the fact that, across local authorities, there is no full appreciation of what it can look like. Oftentimes, people go immediately to energy generation. In my view, energy generation is not necessarily the right solution. When I think about standardisation, I think that transport is far more easily standardisable. That is the case not only because we know that we can predict what user trips look like, for example, but because we can imagine what the ultimate usage-of buses, for examplewill look like.

Let us imagine a bus rapid transit system. We can see what that looks like and who the current users are. That relates to the point that Ben Howarth made about his institutional investors and their expectations; they want to base their investment on a track record. Many of the things that we talk about when we discuss net zero are nascent technologies that are not necessarily well understood. By making the opportunities not only standardisable but familiar for the institutional investors who might come in, we will deliver something that they can imagine. We might be replacing the technology, but we will not necessarily be replacing the financial structuring that makes sense to us.

Standardisation needs to be as much around the technology itself, so that we can imagine what is best practice and what is good practice, and what would be a harmful approach to take. However, we also need to keep the financial structuring more or less standardisable and familiar to the institutional investors, so that when Emma Harvey discusses energy efficiency of buildings, that concept is not foreign to investors, who can say, "We more or less understand what this looks like if it yields cost savings for the people in a home, because it means that their utility prices will fall." At the moment, utility prices are a big concern for everybody. We need to find ways of replacing traditional approaches with new ones, while keeping the financing structure more or less familiar.

09:45

When I hear people talking about standardisation, I think about how, with the Greater London Authority, we have specifically talked about not jumping in with sectors across the spectrum, but about taking a sequential approach and starting with, say, one lending window or one particular area; for example, energy efficiency of buildings, district heating, nature-based solutions or the circular economy. Instead of throwing the net out wide and making institutional investors skittish because they do not know where their money is going, we should take a measured approach, look at long-term investment that matches the useful life of assets and try to imagine that the revenue that comes in is well aligned not only with investor expectations, but with what people can afford to do.

One of the things that I get very scared about when we talk about net zero and green issues is when I hear the man or woman on the street say, "We don't really know what you're talking about, what you're asking us to borrow for ourselves or what you're saying our local taxes will look like, as a result." We need to make things accessible and to take a financially smooth approach to ensure that there is no huge jump at any one time. That means that we need to look at institutional investors for long-term money, and that we must ensure that there is a standardised approach for the smaller local authorities to jump on.

To close, I note—this echoes what I and others have already said—that we need to consider smaller local authorities. I know that Scotland is looking not just at the big cities. What is the capacity of smaller authorities? A small authority will be lucky to have enough people in its municipal offices to cover day-to-day functions. It is not able to think that it would be great if it did additional things X and Y. If we had a standardised approach, the smaller authorities would be able to contextualise things appropriately for them and their environment, and would not have to bring in external technical assistance in order to deliver.

That—not our trying to be creative and funky about these things—will accelerate delivery of net zero. Let us try to find easy cookie-cutter approaches that can be tweaked here and there. That will not only help implementation in local authorities—that is, the demand side of money but will make institutional investors far more comfortable about the supply side in the financial ecosystem.

Fiona Hyslop: Thank you very much. I will pass back to the convener.

The Convener: I call Natalie Don, who is joining us remotely.

Natalie Don (Renfrewshire North and West) (SNP): Good morning, panel.

At last week's meeting, we talked at length about the need for more education of and information for the public; we have touched on those again this morning. A significant part of the transition to net zero concerns energy efficiency improvements in existing buildings. It appears that that will be key.

Emma Harvey mentioned raising awareness of the benefits of green mortgages and how green bonds can encourage participation in green agendas. What more do you feel can be done to encourage home owners to make such changes?

Emma Harvey: At the very outset of the GFI's work on the built environment, we took a couple of months to assess the landscape for owneroccupiers, private renters and social renters in order that we really understood not just the barriers and challenges to decarbonisation, but the potential levers and financial opportunities that could thwart and overcome those barriers. We found that it is necessary to look at the various housing tenures and address them in different ways. For instance, the long payback period for energy efficiency measures is a huge deterrent to owner-occupiers. After all, if you are looking to move house in two or three years, what is the incentive to invest £5,000, £10,000 or £15,000 in energy efficiency measures from which you will not benefit?

One of the challenges for the private rented sector is the split incentive between landlords and tenants, where landlords are responsible for investing in energy efficiency improvements but the tenant gets all the economic benefit, because typically they are responsible for paying energy bills and therefore get the benefit of any savings in that respect.

In the social rented sector, the biggest challenge is the various draws on social housing providers' funds. They need to deliver new homes, there are building fire safety improvements to make and there are net zero considerations. There is no cookie-cutter solution: you need a mixture of solutions for different tenures.

A key outcome of our initial analysis was on data and availability of data for the finance sector, local authorities and property in respect of energy efficiency improvements. At the moment, home owners do not know where to go for information about how to improve the energy efficiency of their home.

One of the solutions that we identified and started to develop was a building renovation passport or plan, which is a rich digital tool that consists of two parts. One is a historical logbook of a property's energy efficiency improvements and energy performance. The other is a step-by-step plan for how a home owner could retrofit their property. We have worked with more than 30 data specialists from across the UK to design a framework of best practice for what a building renovation passport should include, including data inputs and outputs, how to assure quality, who should be responsible for producing the passports, and the role of Government in supporting their adoption. I would be happy to share that paper with the committee after the meeting.

Building renovation passports have been successfully developed in mainland Europe, where they have helped to encourage home owners to retrofit their properties because they have been given decision-useful information at the appropriate time.

Another big challenge is having clarity on how much energy has been saved from an energy efficiency improvement. We worked with an organisation called EP Group, which was formerly known as EnergyPro, on pilots for metered energy savings and how to get information in real time on the energy that is saved through a retrofitted measure. That is helpful not only for home owners to quantify the benefit of a retrofitted measure, but for financial institutions that are developing financial solutions that depend on the energy savings from a particular retrofitted measure. That is a quick example of why data is key, and it shows why putting data into consumers' hands in a digestible and consumer-friendly way is really important.

It is also important to put information into the hands not just of consumers and citizens but of the finance community. One of our more recent publications, which we have called "Lender's Handbook on Green Home Retrofit and Technologies", is an easy-to-use guide for financial professionals to understand the various retrofit technologies that are available, how much they cost, average energy savings, investmentuseful information and potential risks that are associated with the technologies. It also provides information on the policy trajectory across the UK, quality assurance and reputable trade bodies and installers. We have had overwhelmingly positive feedback on the handbook, in particular from the mortgage industry, which says that it uses the handbook frequently when developing and designing new financial solutions-green mortgages, green loans or whatever.

We have found that day-to-day interactions of consumers with the finance sector, particularly for mortgages, are primarily through brokers, financial advisors and mortgage brokers. In collaboration UK Finance, the Building Societies with Association, the Equity Release Council and the Association of Mortgage Intermediaries, we are currently exploring how to develop a "Lender's Handbook" for other professional audiences, initially starting with mortgage brokers and potentially expanding to estate agents-who have strong contact points with consumersconveyancers and beyond.

There is a need not just to put information into the hands of consumers and, as Jeremy Gorelick said, local authorities, but to upskill the finance community on the risks and—this is important, because financial organisations are profit driven the opportunities in the net zero transition.

Natalie Don: There was a lot in there, and it was really helpful. I am sorry, Emma, but I am directing this question to you again, based on your earlier answers. What sources of private capital are available to current home owners to fund retrofitting work? You have spoken about the role that local authorities can play to attract finance into individual areas; perhaps you could expand on that and advise us whether there are other opportunities for attracting capital. I am happy to bring in other panel members following Emma.

Emma Harvey: Capital will be attracted to where there is demand for projects. I will speak to the energy efficiency of buildings, but I am happy to provide some examples from transport and nature through written documents later.

At the moment, demand for retrofitting is highly fragmented, so lenders or institutional investors are struggling to find the critical amount of demand that merits and warrants their developing or designing new financial products or putting significant resource and effort behind providing capital to those areas.

One of the solutions that I mentioned earlier is demand aggregators, which we are starting to pilot with one of the major combined authorities. How can we aggregate demand for particular retrofit technologies? A homogeneous portfolio of technologies could attract funding from an institutional investor; it could be funded through the local climate bonds that we have mentioned; or you could partner up with one, two or several financial institutions that want to provide retail finance to home owners who are looking to retrofit their properties. The ability to aggregate demand, both within a region and on a homogeneous technology level, can be very important. That comes back to Jeremy Gorelick's earlier point about having investment windows that look at particular typologies or technologies, which can be guite important for attracting investment.

Again, awareness-raising campaigns on particular technologies or around particular solutions can be important, not only for creating that critical mass of demand but for making people comfortable with using particular financial solutions. I mentioned how green mortgages work, and we take a similar approach with some of our work on green rental agreements, which are a way for landlords and tenants to split energy efficiency savings. That addresses the split incentive that I referred to. The headlines that jump out for me are awareness raising, aggregating demand—whether through digital platforms or local authority-led projects—and upscaling.

Natalie Don: Thank you, Emma; that was a very helpful and thorough response. Jeremy, do you have anything to add?

Jeremy Gorelick: To add to what Emma shared, it really is important to ensure that we bring in the home owners as much as possible.

I will flag one thing. I am not sure what the situation looks like in Scotland but, in some of the examples that we have been looking at across England, a lot of local authorities have at least some involvement in social housing. There might be an opportunity for the local authority, as the owner of the social housing, to be responsible for the retrofit and for the borrowing to be in its name rather than having to be in the home owner's name. When we talk about energy efficiency and retrofits for social housing, there might be an opportunity for the local authority to play the role of not just enabler but project sponsor. I would put that into your overall thinking when you consider what the mobilisation of capital looks like.

Other than that, I think that Emma went through the question in great detail, so I have nothing to add.

Natalie Don: Thank you, Jeremy; you raised an important point.

Convener, I have no further questions, so I am happy to pass back to you.

The Convener: I think that Ben Howarth wanted to come in on some of those discussion points. Ben, if that is right, I am happy to pass to you.

Natalie Don: I apologise, Ben.

Ben Howarth: That is all right; do not worry. That is the challenge of doing all of this through screens.

I have a couple of points on the issue. First, going back to the question of education and information for the public, it is important to address the prioritisation of who is entitled to what and when, and where it is most important to do the retrofits quickly.

In particular, there is an opportunity to educate and inform the public and make some progress in relation to people who make a claim under their property insurance. That might occur when someone who was not previously considering having any work done in their home—because they do not want the disruption—suddenly has a major leak, so a lot of repairers come in. There will be an opportunity in the next few years to really promote the wider energy efficiency solutions. However, there might be some challenges. For example, someone might not be entitled to the full cost of that work under their insurance policy, but you could bring people together and say, "You can have this work done, but you are also entitled to claim this Government support", or, "There is another financial product that you can utilise to get a loan to do all this work". The advantage is that they can have all the work done at once. I make that single point about utilising the potential opportunity that comes when someone makes an insurance claim for an unexpected event.

Another point is that there are a lot of parallels between the energy efficiency agenda and flood resilience and other aspects of adaptation and resilience to climate change. It is important, therefore, that we look at the agenda in the round.

10:00

In the insurance sector, we have recently launched the Flood Re build back better campaign to address flooding. Essentially, when we look at the way in which that will be financed and structured, we see a lot of the same challenges. It is about persuading people to think a bit differently about how their home is rebuilt after an event. If we can align the energy efficiency agenda a bit more with the resilience and adaptation agenda, that will make it more effective.

A final point concerns skills. For ABI members who invest significantly in property, a concern is that the pace of the energy efficiency work is very quick. It might involve only a small minority of properties, but if a number of the retrofits go wrong and cause more damage to people's homes, the insurance sector would face a huge amount of risk exposure.

We would welcome local authorities—as was mentioned earlier—using their credibility and credentials to demonstrate who is a reliable supplier. It is important that we do not allow the process to be unmanaged and rushed, and that we ensure that people have good skills to do all the work that is required. Some of it is very complicated, and we need to ensure that we do not face problems down the line with a lot of the technology going wrong and causing huge risk and more insurance claims in the future.

Natalie Don: Absolutely—thank you for that. I believe that the process will be a big upheaval for people, so we need to make it as concise, simple and easy as possible as we move forward. That is an important way of thinking.

I thank you all for your responses. As I said, I will pass back to the convener now.

The Convener: Next up is Liam Kerr, to be followed by Monica Lennon. Over to you, Liam.

Liam Kerr (North East Scotland) (Con): Good morning, panel.

I direct my first question to Emma Harvey. In your answer to my colleague Natalie Don, you talked about owner-occupiers in particular. How would you increase the attractiveness of the products and measures that you are talking about among those who would not see a return on their investment? I am thinking, for example, of buy-tolet landlords or those who do not have the ability, or indeed the inclination in the current climate, to take on additional borrowing.

Emma Harvey: That is a very good question. We see an important role for the Government or public funding in supporting those home owners who are less able to pay. In particular, credit enhancement guarantees can make debt investments more affordable for home owners. We have seen the success of that approach in supporting other sectors of the economy, such as high-growth start-ups.

Alternatively, Government could adopt a scheme that is similar to the KFW—Kreditanstalt für Wiederaufbau—model in Germany, in which the Government provides low-cost funding to financial institutions, which is then directly lent on by those institutions to home owners for home efficiency improvements. The KFW scheme ran out of money very quickly because it was a highly attractive proposition that was available to a much wider group than the traditional private finance market would normally address.

I will bring in a few statistics from some consumer research that we commissioned in the past year to explore consumer attitudes towards energy efficiency and financing for it. The sample covered 1,800 households that were representative of England, Scotland and Wales. When we asked them last year about the perceived importance of energy efficiency, 83 per cent said that it was important or very important. When we retested that perception in March this year, the figure had increased to nine out of 10 people.

That demonstrates that energy efficiency and other net zero activities are growing in importance to home owners, who are driven predominantly by wanting to bring down their own energy costs and protect themselves against future energy shocks. However, we found that home owners were less likely to want to use traditional forms of finance at the moment because of concerns about affordability.

You make a very good point that some people, especially in the current cost of living crisis, will perceive some forms of finance as being challenging to use. That is partly why we are exploring innovative new financial solutions that are low cost or have other benefits. One example is property-linked finance, in which repayments are spread over 20 or 30 years, and the repayment obligation is passed on to the next home owner if the property is sold. That effectively results in an energy efficiency service charge that can be highly affordable and spread over a long period of time.

Ultimately, we need innovative financial solutions that help to address the concern that you raised. We must also tap into the growing interest in energy efficiency: this is the first time people have been interested in energy efficiency and net zero.

Liam Kerr: My next question is for Ben Howarth. You talked about skills and about local authorities co-ordinating with insurers and pension funds to ensure that investments go where they need to. Is there the sufficient skill set and integrated thinking across and within our 32 local authorities to achieve that? If not, what should happen and who should lead it?

Ben Howarth: That is a really good question. The skills are developing. It is not so much about the technical skills of individual people but about accreditation and being able to give assurance that people have the required skills.

We are in a fast-moving situation. We can take the roll-out of electric vehicles as an example. The UK and Scotland have an advanced and wellestablished repair and maintenance sector, but we are about to see major change. The targets for the switch to electric vehicles are rightly quite ambitiously paced. Repairing an electric vehicle is significantly different from repairing a conventional car. There is no reason why we cannot get to the point where our engineers can do that work-they can-but we must train people quickly and must give the people who commission them the confidence that they have had that training. We need an appropriate way of verifying that someone is a genuine expert on electric vehicles, because there are differences. There are things that can go wrong when a battery is taken out of a car that would never apply to a vehicle with a combustion engine.

There is no fundamental lack of people or of will, but we must move quickly to train people. The insurance industry is taking the lead on that. Thatcham Research, which the industry funds, has started an EV training course. We are making progress on that issue, which applies to a lot of these technologies. There might be a skills gap, particularly on the care and maintenance side. That is why I encourage people not only to focus on the original providers of the technology but to think about whether we can maintain, repair and care for the technology and keep it operational in the long term. That will protect us against the longterm risk of those things beginning to go wrong.

I cannot suggest a simple policy solution. We must make a sustained effort to think about the key technologies that we utilise to deliver net zero and must ask ourselves whether existing employees—or those who work in sectors that may have to transition—have the skills that we need and how we will verify that they have those skills. If an insurer is commissioning someone to work in a garage, how would they quickly and easily know that that person has the required skills to repair an electric vehicle? That is the main point about skills.

Adaptation and resilience are also really important. Decision makers can drive that by sending strong signals. It is easy to look at things separately. We can look at the attractive, fun side of net zero as being the roll-out of new technology, but then worry about adaptation and resilience somewhere else. We spoke earlier about incubating new technologies to be ready for investment. When local authorities are playing a role by giving planning permission, funding or grants to new technologies, they can send a really strong signal about adaptation and resilience. That will be good for those projects, because they will be more resilient.

Making that condition also gives the people who invest in skills and training the confidence and signals to know that it is worth upskilling their people to do that, because a lot of projects depend on having maintenance done to that particular standard. If we could start by sending out a strong policy signal about the new net zero technologies and infrastructure that are getting planning permission, that will create a skills base that could then roll out adaptation and resilience into wider society, which is less directly involved in the transition to net zero. To me, it is about sending strong signals and being able to verify and clarify exactly which skills people have.

Liam Kerr: Let me pick up on something that you said earlier. You talked about insurers carrying out work, such as repairs. What is the role of the insurance industry in the transition to net zero? For example, does that include handling claims and repairs more sustainably, or having sustainable sourcing in supply chains?

Ben Howarth: We have a really big role in the transition, which is possibly overlooked because we are often seen as being part of the financial services sector and only involved with money. However, we commission a huge number of repairs across the UK every single day, mainly for housing and vehicles. There are a few things that we can do. We have already mentioned having touch points with customers when they make claims, which is about giving them the right

information and choices and encouraging them to think more sustainably. We have to accept the reality that, in some cases, that might require them to accept a different choice from the one that they were used to. Recently, I heard an example about flood resilience, where a claimant was entitled to a claim value of around £25,000 for a kitchen. However, after discussion, they were persuaded to accept a cheaper, lower-quality kitchen than the one that they had had before, to a value of around £10,000, and to spend the rest of their claim proceeds on flood resilience. That is the type of example that we could consider; it is about being creative and a bit smarter when we manage claims. That is one aspect.

The other is supply chains. Our industry has a huge volume of small businesses that we work with daily. It is not that small businesses are not committed to net zero, but we know that some of the science, and the methodology to calculate carbon, is pretty complicated and not easy for such businesses to work with. There are useful resources that they can use, though. First and foremost, it is important that, through our supply chains, the insurance sector encourages people to use the simpler resources that are available. For example, the science-based targets initiative has a small and medium-sized enterprises track, and there is also the SME climate hub that was launched to coincide with the 26th United Nations climate change conference of the parties-COP26—last year.

We want to see consistency in approach from ABI members, so that every small business that they work with in the supply chain is asked the same questions and asked to provide information in a consistent format. We do not want to see every single insurer in the UK. when commissioning, say, a motor garage, sending that business a different version of the survey so that it has to spend half its time filling in climate surveys and providing variations of the same information in slightly different formats. The ABI is therefore trying to drive greater consistency in supply chains.

The end message is that we can play a useful role in equipping large volumes of small businesses—many of which are lone traders, especially those in repairs—with the information that they need on net zero and what they need to do. We have a massive role to play in our supply chain.

Liam Kerr: Thank you—I am very grateful. I will hand back to the convener but, before I do so, for full transparency I add that, earlier, I asked a question about buy-to-let properties. Just so that the committee is aware of it, I advise that I have a property that is occasionally let out but is not a buy-to-let one. **The Convener:** Okay, Liam. Thank you very much for that.

Monica Lennon (Central Scotland) (Lab): Good morning. So far, this has been a really interesting and useful session for the committee.

Thinking about the role of local authorities as projects, borrowers, sponsors and enablers, it is clear that having the right financial skills and the right people is important. During our inquiry, the committee has heard a lot about the challenges on skills generally but, in particular, on the lack of financial skills. I will come to each witness in turn, and perhaps Jeremy Gorelick could give an perspective. Could you international give examples of good practice that you have found? Are you seeing examples of people being seconded into local authorities, whether that be from the private sector or other parts of the public sector?

We have not had a chance to talk about the Scottish National Investment Bank in any great detail. Do you see there being opportunities as regards the role that it could play in supporting local authorities with the important work that they have to do?

I will come to Emma Harvey first, and then to Ben Howarth and Jeremy Gorelick.

Emma Harvey: You touched on an interesting point on secondments and collaborations between local authorities and the finance sector. For instance, we are going into a strong partnership in greater Manchester, in that we are seconding in one of our colleagues who will be working closely with the local authority and other local organisations to pilot financial solutions in that area. It is important to have such close collaboration.

There has been collaboration through the Scottish Government's green heat finance task force, which is convening financial trade bodies and organisations to work with policy makers on potential pilots. There is a need to have such close collaboration, with joint objectives that are aligned and are the same. That is one way of providing education.

We know, as well, that there are a number of different education standards out there. The Green Finance Institute launched the green finance education charter, which encouraged professional bodies to educate people in their professions. Again, I think that there is a mixture of collaborative projects and professional training that can help to upskill the finance sector and provide that education training to local authorities, too. 10:15

Ben Howarth: Emma Harvey has covered the specifics around financial skills and literacy really well. On the issue of net zero, I do not think that ABI members expect local authority personnel to understand all the nuances of their issues in massive levels of detail. However, they are genuinely willing to sit down and engage.

The point that members often make to me is that it is at the incubation stage of projects—when the science has been done and the technology is relatively well proven and what remains to be done is the building of a business case—that they are sometimes left out. Investors would like to be involved in the stage at which people build a business case—they would like to sit down and talk about how the business case works so that, to go back to a point that I made earlier, they can provide information about exactly what they would be looking for. There is a genuine appetite on the part of ABI members to be part of that process and pass on their expertise.

The rationale for that is that a lot of our members-89 per cent of the United Kingdom's long-term savings market-have made net zero commitments under the United Nations race to zero campaign. However, that is only part 1, and what they need now are the things that they can invest in instead. They have made commitments on moving their assets away from carbonintensive sectors over time, but they need to see a different platform of things to invest in. They are committed to sitting down with local authorities and achieving the goals. I am confident that, if you create opportunities to get our members in, they will come to the table and share their expertise. A lot of them are confident that these investments offer value in the long term; they would want to invest in them anyway, because they do not want to miss out on good opportunities. That is the broader point that I would make.

Jeremy Gorelick: I am really excited by everyone's optimism and I do not want to be a rain cloud, but I must say that, when I asked the institutional investors around the proposed London issuance whether they had resource that could go in to provide support, although everyone said that they would love to invest in that transaction, nobody put their hand up to say that they had some spare floating resource that could prepare the transactions or help with the financial structure. Although it is great to imagine that private sector companies would be the investorsthat is their role—I do not know the extent to which any of them are going to jump in to provide direct support over the entire process of preparing a project, largely because of the opportunity cost of putting someone on secondment.

Although it is not realistic to think that the private sector is going to come in, it is realistic to assume that, for example, the Scottish National Investment Bank could provide exactly that support. That is the natural pipeline for it. We are having similar conversations with the UK Infrastructure Bank, which is at its one-year anniversary. We are talking about the support that it is providing. Our direct question to it was, "What sort of technical assistance will you provide to local authorities and how will you help them to have a reliable pipeline of transactions?". It has £4 billion that is set aside for investment in local authorities to help them to get to net zero, but it has not really been able to move much capital, because the pipeline of projects does not exist. The opportunities that are being presented to it are helpful in serving the bank's goal of being able to invest in that way. Those are the same sort of opportunities that the Scottish National Investment Bank could be considering.

I want to clarify a previous point that was raised. When we talk about the fact that projects are now financially ready and we just need to get the contractors in, one of the biggest challenges is that there is a lack of contractors-I do not know how many of you have tried to retrofit your homes or have spoken to people who have done so, but, if you have, you will know that that is the case. Therefore, one of the things that is important, besides the financial capacity building for local authorities and the technical side in relation to the structuring of transactions, is the need to build up the capacity of some of the contractors, labourers and tradespeople who might have the capacity to do the work but do not necessarily know how to do it in line with net zero expectations.

That is one of the things that I have encouraged the Greater London Authority to do with some of the proceeds that come back on repayment of its transactions. Such money should be invested into technical assistance facilities, not necessarily only for the local authorities or the borrowers that they have but for the tradespeople themselves, so that the policy can be delivered at pace and at scale.

That might be something else for the committee to consider when looking at how we help local authorities to get to that point. Local authorities might have drawn down the money and be ready to go but not have contractors who are prepared to do the work. The issue is as much about building the financial and technical capacity of local authorities as it is the people who are responsible for doing the work.

Secondment could absolutely work. The big challenge will be that there are 30-plus local authorities in Scotland. Every one of them will say that they need that support. How will you be able to source not just one or two but 30-plus people, each of whom will have some degree of the specific knowledge of and expertise on the needs of the particular local authority?

Monica Lennon: Thank you, Jeremy. That was really helpful. I am watching the clock, so I will pass back to the convener.

The Convener: Thank you very much, Monica. The final questions will be from Jackie Dunbar.

Jackie Dunbar (Aberdeen Donside) (SNP): Good morning. With regard to supporting the transition to net zero, ABI has suggested that there are currently not enough investment opportunities and that the process is too complicated to freely use the insurance industry's investment capacity. I see that you are nodding, Ben Howarth, so I will put my question to you first. Will you set out what more Scottish local authorities, public bodies and the Scottish Government can do to simplify the process and increase the number of opportunities?

Ben Howarth: Much of what we have already talked about is about what Scottish local authorities and the Scottish Government can do. I re-emphasise my point that technologies will not just suddenly come online. We are not unrealistic. There will be a lot of time before that happens.

One practical thing that the Scottish Government can do, which could filter down to local authorities, is to publish very clear transition plans so that investors can plan ahead. I hope that that would not be too complicated. We appreciate that there would be some uncertainties in those plans, but they could set out really clearly what technologies the Government expects to filter out in, say, five years' time, what decisions it will face and the opportunities that there will be to input into them.

I am sure that local government will say that it does not fully understand the views and attitudes of investors or what they are planning. The same is true in reverse. Many of our members say that they do not fully understand exactly what will happen when, what decisions have definitely been taken, what is still uncertain, who is considering what when or even really simple things such as what meetings are going ahead. It is tempting for Government to think that it knows all the big investors. However, some of the biggest institutional investors in the ABI membership are not household names and would not naturally get invited to such meetings. A bit of transparency is needed on what decisions are being taken when.

That is the stuff that the Scottish Government could do.

In our climate change work, we have talked about the complexity of the process. However, the biggest challenge is probably, as I said, getting new asset classes approved by the Bank of England and the financial regulators. That is a complex process that can slow things down and, at times, lead to opportunities being lost.

At UK level, we are responding to the Treasury's consultation on solvency II. We would really like that reform to go through. I appreciate that the Scottish Government does not have direct influence over that, but, to go back to my earlier point, when Scotland is developing investment opportunities, it can ensure that it has spoken to the Bank of England and that the bank has a clear understanding of what those opportunities are and when they are coming, because it has to approve new asset classes and say that insurers can invest in them safely. If it can do that at an early stage, it speeds up the process. A proactive thing that the Scottish Government can do is to be as close to the Bank of England as possible.

Jackie Dunbar: How much investment could the ABI leverage in?

Ben Howarth: We have not broken the figures down for Scotland, I am afraid, but, across the UK, we commissioned Boston Consulting Group last year to consider as part of our climate road map what we could leverage. The overall amount is £900 billion, which breaks down to around £60 billion a year. I appreciate that those are very big figures. We emphasise that it is "could" and not "would"—that is, if everything goes right, there is significant capacity.

I hope that it does not sound as though we are overclaiming on that. We are trying to illustrate that there is a significant amount of capital that could come from the UK's long-term savings sector and general insurance sector to finance this, which just means that it is worth trying to unpick those roadblocks. We are not promising that all that investment will definitely happen; we are saying that it is there—there is an appetite to invest. If you can give us the opportunity, that is the kind of money that we are looking at, so it is worth working with us.

Jackie Dunbar: Thank you. Would Jeremy or Emma like to add anything?

If not, I will ask you a question, Emma. When you spoke earlier about local climate bonds, you said that you would welcome more engagement with Scottish local authorities. Is there a sticking point that means that you are not getting engagement with local authorities or has it basically just not happened yet?

Emma Harvey: The local climate bond market is very new. It has been, to date, pioneered by Abundance Investment, and we are playing some roles. It is more that a small team is developing an exciting new market, and we want to get as much traction as we can with local authorities across the UK. If there were an opportunity for the Scottish Government to act as a conduit or to provide information to Scottish councils about local climate bonds, that would be welcome; however, I think that it has been predominantly not a sticking point but a question of capacity as the market evolves and grows. We would welcome conversations with those councils, but it is not that there has been a particular deterrent to date to having them.

Jackie Dunbar: You are saying that there has just not been any contact with them, rather than there being a sticking point.

Emma Harvey: Yes. I think that there has been some early tentative contact, but having dedicated, targeted engagement is needed.

Jackie Dunbar: I am very aware of the time, convener, so I will pass back to you.

The Convener: We are up against the clock, but there are one or two specific questions to follow up with.

I have a brief question for Jeremy on standardisation. The GLA bond might set the market precedent for some of this. Is it rated? Are the rating agencies involved, to provide a level of standardisation in the structure?

My question for Emma is on skills and expertise at local authority level. Presumably, there will be an issue with pay rates that can attract the necessary people with the right expertise, because local authorities will be competing with the private sector. Even if local authorities train people in that area, they might be at risk of losing them to the private sector. Do you have any thoughts on that? I go first to you, very briefly, Jeremy, and then to Emma.

Jeremy Gorelick: I will answer very quickly. It will absolutely be a rated instrument; otherwise, there is no way that the institutional investors would feel comfortable with it. The expectation is that it will be investment grade, which allows for the bulk of institutional investors to come in. That is important not only in the primary issuance but in secondary trading. We want to make sure that it is as liquid as possible. There is really no way around it: at various times, people have said that we can perhaps find a way to do this more creatively, but there is no creativity when it comes to having a financially rated instrument where we want to see liquidity.

The short answer is yes, it absolutely needs to be rated. We have not yet determined who will do that, but it will be one of the big firms—probably Moody's or S&P Global Ratings. **The Convener:** That is great, Jeremy. If and when the prospectus is issued, it would be great if you could send a copy of it to the committee, if that is appropriate.

Jeremy Gorelick: Absolutely. It will be a public document, so I am happy to share it.

The Convener: I hand over to Emma for the question on pay rates at local authorities.

Emma Harvey: It is a really interesting point to raise; I have a couple of things to say. This is where consultants can be really important—having somebody with financial expertise come in and play an upskilling role with councillors and civil servants in the council so that the skills have been transferred when their secondment ends.

One of the other pieces is that those roles, particularly if they are in green and climate finance, can really appeal to people because they have a strong purpose and really strong outcomes. Some people might be willing to take a slight pay cut to go and work in an area that strongly appeals to them. We have seen many people starting to move into sustainability finance areas and be willing to take a temporary pay cut to do something that has massive outcomes and massive impact. Therefore, there are multiple approaches for attracting interest and talent into the area.

The Convener: That brings us to the end of our allocated time. I thank the witnesses very much for taking part; it was a fascinating discussion. Thank you for sharing a very wide range of insights and your expertise in this area. You have given the committee a lot of good information and background to focus on as we take forward our inquiry.

Enjoy the rest of your day. Jeremy, I appreciate that it is probably about 6 o'clock in Indonesia, so enjoy your evening there.

10:30

Meeting suspended.

10:37

On resuming—

The Convener: We will now hear from our second panel of witnesses, and will explore how councils use nature-based solutions to meet climate change and biodiversity targets, the resources and skills that are required to do so, and what partnerships and financing projects exist between local authorities and cross-sectoral partners.

We have a larger than usual panel of witnesses to discuss those issues, so I will invite the panel members to introduce themselves and their organisations. I will start with our guests who are in the committee room, Julie Waldron and Simon Parsons, and will then ask John Cunningham, Nick Halfhide and David Harley, who are joining us online, to introduce themselves and their organisations briefly.

I will hand over to Julie Waldron.

Julie Waldron (City of Edinburgh Council): I am a senior planner with the City of Edinburgh Council. I am a landscape architect, so I look after landscape and water issues for the council. I work on projects alongside Scottish Water, the Scottish Environment Protection Agency and NatureScot, which look at climate change adaptation.

Professor Simon Parsons (Scottish Water): Good morning. I am one of the directors of Scottish Water. I sponsor the majority of our sustainability activities, including on net zero and all the activities surrounding investment in relation to climate change.

John Cunningham (Comhairle nan Eilean Siar): Good morning. I am from the Western Isles Council, or Comhairle nan Eilean Siar, which is the local authority for the Western Isles or the Outer Hebrides. We are working on energy solutions, including onshore and offshore wind and hydrogen, and on climate change mitigation and adaptation.

Nick Halfhide (NatureScot): Good morning. I am the director of nature and climate change at NatureScot, which is the Government's national agency that looks right across biodiversity and nature issues. We work at a national level and with many local authorities on monitoring and regulation, and we support those organisations with a range of grants.

David Harley (Scottish Environment Protection Agency): It is good to be here. I am the interim chief officer for circular economy at SEPA, which is the country's environmental regulator and flood authority.

The Convener: That was seamless. It is great to have everyone at the meeting. We have

allocated around 70 minutes for the session, and we will move straight to questions. My first question is an introductory one to help to set the scene. A number of members want to cover a number of issues.

Will you briefly outline the main challenges that your organisation faces in relation to addressing climate change and biodiversity loss? Please answer the question in the order that you introduced yourselves.

Julie Waldron: From the perspective of the council, one main challenge is partly to do with resourcing and the fact that there is a shift in the resources available. As a project manager on this type of work, I would say that applying to the funding streams is very complicated. If you have an active travel stream, you go to Sustrans and it is well organised and easy to put in your application, and it all gets sorted out, but there is not anything in the same space for the planning and design of the green-blue infrastructure.

There is something for shovel-ready projects on site, but it is complicated. You end up getting five different bids with five different project managers, and each receives a small amount of money. I always jokingly say that it would be better if we had a Susgreen that was for green-blue infrastructure, so that there could be a multidisciplinary and multifunctional application form that covered biodiversity and surface water management at the same time as creating beautiful places with active travel and footpaths.

In Edinburgh, we have carried out a strategic project across the whole of the city called the green-blue network project. We have put together all the information, which has given us a strategic green-blue network and has highlighted areas that need action. When we move into an area to carry out the action, we not only consider one aspect of climate change but try to cover everything together in a multifunctional way. We want to work with a multidisciplinary team of consultants on a multifunctional project. That is one challenge that we have had in the city.

The second challenge is a slightly personal one. I am one of very few landscape architects in the public sector. In order to bring the engineering design expertise into the public sector, we have to go to the private sector. Therefore we need money to access such expertise to enable us to make more of a multidisciplinary situation.

Turning to biodiversity loss, we have set up the Edinburgh nature network, which was embedded in the green-blue network project. That looks across the city to consider what we can do for nature. The challenges there are exactly the same. We are working closely with our Edinburgh nature network colleagues, because they are all part of the same team, and we work very much in a multidisciplinary fashion.

The other key issue to mention is trees. If we consider what trees give to a city, particularly one like Edinburgh, water attenuation is perhaps not the first thing that people think about. However, trees are very important for water, due to evapotranspiration and the fact that the canopy holds back the water from getting into gullies. Our tree preservation order legislation is difficult and needs a bit of an update. Trying to prosecute someone is a lengthy process and does not take top priority, because of the way in which it is done, which is totally understandable.

In a conservation character area, trees are protected, but we can have 800 applications per year and only six weeks in which to get a TPO on to each tree. If it does not happen, we lose that tree. People can replant, but putting in one or two very small trees when they are losing a giant mature oak does not compensate for the loss of that tree in any way. That is particularly true of the loss of water attenuation, not to mention biodiversity, canopy cover, heat loss and everything else—including, of course, mental wellbeing, of which we are all very aware after the Covid pandemic.

10:45

We wonder whether it is possible to do something similar to a conservation area character appraisal in order to capture water-sensitive areas of the city. That would offer the possibility of protecting trees in those areas while being careful about changing surfaces there from permeable to impermeable.

In Edinburgh, we know where our watersensitive areas are, but we do not have the ability and planning in place to protect them. The permitted development rights talk about not making a permeable area impermeable, but we do not have the resources to enforce that. We cannot be out on the streets to see whether people are paving over their gardens to put in charging points for electric cars. It is fantastic that people are doing that, but we could have some sort of mechanism to protect the areas of the city that are particularly sensitive to water and can cause flooding further downstream. At the same time, we could see whether we could do anything to improve the way in which we protect the trees, because functionally the system is not guite slick enough and we need more support in that regard.

With that approach, working in a multidisciplinary way with Scottish Water and SEPA, we would have a chance to move everything forward.

The Convener: Thank you—a number of those issues will be picked up in questions from members.

Professor Parsons: We face opportunities and challenges in getting to net zero. Scottish Water has made a commitment to get to net zero across all our activities by 2040, and we have accelerated all our work around our operational footprint to get there 10 years earlier. We are very dependent on the environment to provide the services that we provide every single day, and adapting to the effects of climate change such as flooding or drought is hugely important in enabling us to continue to provide that high-level service.

We face many challenges across both those areas. In getting to net zero, one of the biggest challenges that we have faced in the past year has been not only in planning, but around access and connections to power. Another challenge is the availability of resources, such as skilled people who understand renewable power, and access to the raw materials that we need as we develop our renewable power activities.

I will build on some of Julie Waldron's points around adaptation. I think that we all now know that cities around the world and in Scotland will face big challenges associated with climate change and how we adapt to that. Those are complex puzzles that we have to solve. With bluegreen infrastructure and nature-based solutions, we have a real opportunity to deliver solutions for flooding, where a lot of our focus tends to be, and for biodiversity and heat sinks. That can provide us with many benefits as well as creating places in our cities that are often very beautiful.

However, it involves a lot of people. Julie Waldron talked about the work that we do in Edinburgh with David Harley and his team at SEPA. The question of how we fund that type of work is complicated. Where does the funding come from and how do we ensure that that work is a priority for organisations such as the City of Edinburgh Council and other councils? Dealing with that is not always a priority.

The opportunities out there for nature-based solutions are huge, and we can point to a lot of them. We can point to the art of the possible, but the challenge that we have now is how we turn the art of the possible into the art of the normal.

John Cunningham: There are three challenges for us: one is internal and two are external. First, on funding, I echo Julie Waldron's point that local authority funding is not currently equipped to provide solutions for the problems that we face. In the Western Isles, because of the funding formula, we had the largest reduction in central funding of any local authority. We need some external injection of funding and support for what lies ahead of us.

Externally, we have a challenge in the form of the natural environment. The Western Isles is a 120-mile-long archipelago and largely has a soft mobile coast on the Atlantic seaboard. As a result, we are on the front line of climate change, facing the full force of Atlantic weather systems. We have discovered that hard infrastructure is not necessarily the answer—it is carbon intensive, tends to be very expensive and just displaces the damage further down the coast—and we are actively looking at green non-infrastructure interventions in that space.

Lastly, we would like to accelerate decarbonisation, but we are constrained by the grid network. The layout of our electricity network makes things quite difficult, and it takes years to change the regulatory system in favour of islands and rural areas. We need to accelerate the adaptability of the grid to allow us to decarbonise.

Nick Halfhide: I will try to keep this brief, but our first biggest challenge is the scale of what we have to do and the pace that we have to do it at. As far as climate change emissions are concerned, we know that 25 per cent of emissions come from our management of the land and sea. We can see how other sectors such as electricity are decarbonising, the scale and pace at which they are doing that and the volume of resources that go in, and we have to do something similar with the land and sea that produce that 25 per cent of emissions.

The second challenge is adaptation, which you have already heard about with regard to the Outer Hebrides. As we know, £15 billion-worth of assets across Scotland are protected by our natural coastal systems, and many of them are at risk as sea levels rise. That shows the scale and the pace at which we need to move.

I have already mentioned resourcing and the volume of money required. In the previous evidence session, you looked at how to get that private sector money in. We know that it is out there, but the question is: how do we pull together projects in such a complex area and with so many different actors?

Another challenge is whether we have the right skills in the right places. We know that a huge volume of jobs are coming online in the climate change and biodiversity sectors, but many of them are difficult to fill and, indeed, many are in our more remote areas where housing and other provision is challenging.

There is also a capacity issue, whether it be in local authorities, in environmental nongovernmental organisations or in the farming or fishing sector. We are talking about a major cultural change, a need for new skills and having the right people—and enough people—to put together projects and to ensure that there is enough basic climate and nature literacy.

Those are just a few of the challenges that I would mention.

David Harley: I want to build on the other witnesses' contributions. In many cases, particularly when it comes to climate change adaptation, we are talking about a natural systems failure. Of course, that leads to a cascade of problems. With the water environment, for example, you get poor water quality, flooding, sewage discharges, biodiversity loss, health issues and so on—in other words, a negative cascade. However, by rebuilding that natural system, you get a virtual cycle of multiple benefits: less flooding, healthier cities, better air quality, more active travel and biodiversity and so on.

I guess that my main point, then, is that the system is complicated, and it requires many players to work collaboratively to get it right. By that, I mean organisations such as local authorities and different agencies, including this committee, getting round the table. The main challenge is finding a space to carry out that deeply collaborative work, which should become the default way of working rather than the transactional approach. In that respect, capacity is a key issue.

There is also the issue of standardisation and of taking standard approaches and learning from one another, which came up a lot in the previous evidence session. I think that we could also strengthen planning to make some requirements the default and, indeed, strengthen those requirements.

The Convener: Thank you for those opening remarks. You have raised a number of issues that members will want to explore. Monica Lennon has a supplementary to my initial question.

Monica Lennon: I thought that what Julie Waldron said about trees was fascinating. I declare an interest as the Parliament's oak champion. As a former planner, I recognise a lot of what she said.

We have just been joined in the public gallery by lots of young people, so my question is now even more relevant. In our earlier session, we talked a lot about finance and unlocking opportunities. City and urban planning is exciting and the role of landscape architects is important, but young people tend not to hear about the jobs and opportunities that exist in those areas.

Julie, it is clear that you are very passionate about trees and the amazing role that they play in relation to our climate. What can we do to ensure that the importance of trees is given higher priority? Could something be done through national planning framework 4, for example, or would you like the Scottish Government to provide more guidance?

You said that the teams that you mentioned work best when a multidisciplinary approach is taken in-house, rather than expensive consultants having to be paid for. Are there opportunities for apprenticeships and other ways into your professional line of work?

Julie Waldron: Those are interesting questions. As far as apprenticeships and that type of thing are concerned, I think that there are opportunities on the maintenance side of such systems. Maintenance is not seen as very exciting, but it is absolutely key. We are moving from a dead system of pipes under the ground to a living system of things above the ground—things that are alive and that grow, such as rain gardens and trees. We need to maintain those systems and help them to survive.

I can speak only on behalf of the City of Edinburgh Council, but we have a parks department, which has people who are very skilled at maintaining parks. We have horticulturalists who are skilled at cutting grass and planting, but they do not yet have the necessary skills on the wet or water side, by which I mean rain gardens and sustainable urban drainage system—SUDS trees. As well as the fantastic role that trees play in the streets through evapotranspiration and reducing the amount of water that goes into the rivers, there are what are called SUDS trees, which have a completely different structure underneath the ground, which allows water to go underneath. It is quite a clever system. Fewer species can survive that, but such trees can take flooding, in an area where a rain garden can be fitted in. There is a whole side of maintenance where there could be apprenticeships and training programmes that could inspire young people.

When it comes to design, the training course is quite long, but I would say that it is worth while. At the end of the day, landscape architects have the skills to design the public realm and the spaces between buildings, bringing on board all the issues to do with trees and so on.

It is not necessary to have been a landscape architect in order to come into that type of work; there are different ways into it. We need to advertise that more, so that more people are attracted to it, because it is not always seen as how can I put it?—the top thing to do. Being an architect and being able to build an amazing building might be seen to be better than being a landscape architect, who looks more at the soft side. We need to make that sound more exciting. We need more help with protecting trees. As I said, with the TPO system, it is very difficult to get a prosecution. People feel confident that they can take down trees and nothing will happen. We need to protect trees through a new piece of legislation that allows conservation areas to be created for vegetation and trees and which encourages surfaces to be made permeable rather than impermeable. We also need to do more to ensure that, if a developer takes down a tree and comes back three years later and says, "Oh! There's no tree. Can I put my building in?", that is strongly frowned upon.

At the moment, it is difficult to get such prosecutions because of the timescales that are in place and because of the priority that is given to how those prosecutions happen. I completely understand that there are competing priorities and that, if a case that involves somebody who has cut down a tree is competing with a case that is perhaps of greater personal significance, the case involving the tree will be put at the bottom of the list. That means that we are not getting such prosecutions.

My suggestion would be to hold a consultation with the arboriculturalists in the councils, if that would be possible, as they are probably full of ideas about how to make the system slicker. It would be really helpful if there was some movement on protecting trees, because they will play a key role as we move forward.

Monica Lennon: That is really helpful. When you say that the tree preservation order legislation needs to be updated, do you mean that the updating should go beyond enforcement and penalties? Are you talking about the scope of the legislation?

11:00

Julie Waldron: If it were possible to ask for the views of the arboriculturists in the councils, you would get quite different reflections. I can reflect only on what happens in Edinburgh, which is that people are frustrated because we cannot get prosecutions and stop the tide in tree loss. It might be different in other councils. That would be an interesting exercise.

As I said, the City of Edinburgh Council does not have the resources to go out and check whether someone has done what they said they were going to do. That is a real problem—we are always going to say that. We have to think about how we work with our limited resources to ensure that things happen. The revisiting of the TPO legislation is important, as is getting suggestions from other arboriculturists on how to move things forward. Trees are recognised as being helpful in terms of people's mental wellbeing as well as being important in terms of biodiversity and nature, although those issues are key. However, on top of that, there is the issue of water. People often do not realise what an amazing job trees do of stopping water going into the drains and thereby creating a time lag that prevents flooding. That is an incredible part of what a mature tree does. For all those reasons, it would be helpful if there were movement in that area.

Fiona Hyslop: I want to talk about private sector finance. I will put my first question to Nick Halfhide.

How well does the public sector currently leverage support and finance from the private sector for nature restoration and nature-based solutions? What are the key barriers and hurdles to achieving that? What returns is the private sector looking for from nature-based solutions?

Nick Halfhide: The short answer is that the situation varies considerably. Some of the markets are more mature and some are very immature. The more mature markets are in peatland restoration and native woods—we are in quite advanced discussions with private sector investors in relation to peatland.

As you can imagine, the situation is terribly complicated; part of our challenge to date has been that we understand the ecological side of things and investors understand investing, so we have to help each other to understand what it is that we each require. Largely, obviously, the investors want a return. We have packaged blended finance using public money and private money. The public money was used to unlock the funds of investors and to give them confidence that there is a long-term product and that people will not change their minds a year down the line.

Earlier, I mentioned coastal areas. There is a significant opportunity in that regard—we might want to come back to that later in greater detail. Investment in natural coastal defences would help to protect public assets such as railways and buildings in those areas. We need to continue to explore that territory. We have a project called dynamic coast, which is moving in that direction. A good example of that is the work that is being done with the harbour authorities, the council and others in Montrose to see how we can bolster the coastal defences to protect the harbour facilities and the town. Such things are complex, but if you get the main actors together, they can work really well.

Fiona Hyslop: Professor Parsons, do you have any comments on leveraging private finance?

Professor Parsons: I do not have comments specifically on leveraging private finance; all of

Scottish Water's activities are funded via customer charges and Government borrowing.

Nick Halfhide talked about peatlands, which is quite an interesting angle, because we have significant ambitions for peatland restoration. It is fantastic to be able to consider that-it is an opportunity that is fairly unique to Scotland. As an organisation, we rely on peatlands for water quality, so an improved peatland is a benefit to us. The downside is that there is a bit of a lag at the moment because of uncertainty. If the peatland is on our land, we will often work with Nick Halfhide and his team to improve it, but if it is on other people's land, there is a bit of a lag while people wait to see what the true value of the peatland is. Work to improve peatland does not always happen at the pace at which it would be done if we were doing it ourselves. It might be a small problem, but over the past year we have had packages of peatland that we would have liked to improve, but because of challenges to do with whether there is greater value elsewhere, improvement has been paused.

The opportunities exist. The question is how to link the witnesses from earlier this morning with Nick Halfhide and his team, and the national parks in particular, to find those opportunities.

Fiona Hyslop: I will change tack slightly. I was struck by what Julie Waldron said about needing a nature-based equivalent of Sustrans or heritage conservation areas. City deals are another mechanism that is bringing together public and private finance in strategic planning. Some city deals have been established for some time. Are the city deals adequately aligned with nature restoration goals and use of natural infrastructure to achieve net zero, or do we need to look again at some of the city deals through a net zero lens?

Julie Waldron: I admit that I am not an expert on the city deals and where the money is used. However, as a project manager trying to bring money in, I suspect that city deals are net zero based rather than adaptation based. Net zero is really exciting, new and different, but adaptation is quite hard work, as are maintenance and retrofitting. Even the word "retrofit" is quite heavy.

I stand to be corrected, but on the money side of the city deals, I have found that although the nature restoration fund is fantastic, it starts only when projects are shovel ready, when the designs have been done.

What I struggle with—many of us in this area are struggling with it—is organising where, strategically, a project area should be. We need to design a project in a big multidisciplinary group. When we are ready, we can get money and build our construction. The issue is the planning stage. Maybe finance for that is in the city deal, but I have not been pointed in that direction by our finance people, who understand the city deal. That might be because I am too far down the line and am doing the projects. I am afraid that I cannot give you a very good answer on the city deal question.

Fiona Hyslop: It is an interesting perspective that the city deals are more focused on net zero than they are on the biodiversity crisis and nature solutions. Knowing the Lothian area, as I do, I think that an equivalent of Sustrans for nature would be a way to channel funding. There is public funding, but projects do not necessarily get the private funding that we think is needed. That is the gap.

Julie Waldron: That is the gap. Private funding and public funding are very complex. A large piece of work is being done at the minute by the organisation that I work in, which is the green-blue network. The partnership consists of SEPA, Scottish Water and the council. SEPA is leading on looking at the financing side, with its experts on co-financing and green financing.

I am on the more practical side of the project. I am sitting there saying, "I need money to do this multidisciplinary project, so where do I go?" I end up going to Sustrans quite a lot because the process is straightforward and applications are accepted at various times. As a project manager, I can go and get that money, but I have to persuade Sustrans to let me use it for something that is not quite what it is intended for. My area of work is not Sustrans's main focus, but it has been fantastic and has funded projects such as my green-blue network project.

I am focusing on surface water management and getting money for that. The money that comes in for flooding is primarily for river flooding, and the cost benefit ratio for that means that Edinburgh tends not to get it. In any case, that money would go into the council's coffers—it is not targeted specifically at surface water and green-blue infrastructure. That is another source of money that does not come into my small area of work. I am conscious that I am knowledgeable about a very limited and specific area, which is green-blue infrastructure adaptation and biodiversity.

Fiona Hyslop: John Cunningham can perhaps give us a view from the Western Isles on his experience of leveraging private finance into nature-based solutions.

John Cunningham: We have a huge peatland resource in the Outer Hebrides, so peatland restoration is becoming a big deal. About 50 per cent of our land area is now owned by the community through the community right to buy, which means that there is an economic driver, as well as a biodiversity argument, for community estates to participate in peatland restoration. That has started to gain traction, and we now have investors looking actively at how they can invest in peatland restoration.

It is difficult to attract investors to old-fashioned hard infrastructure. The local authority is on its own, with a limited budget, for building hard grey infrastructure. That is a reason why we are moving towards the softer solutions.

With regard to the city deal, I would reflect what Fiona Hyslop said. There is a drive towards net zero and generation, but a by-product of that is that we are engaging with developers that are coming to the city deal arrangement and looking for opportunities to generate hydrogen and Once we engage with electricity. those developers, they are looking at how they can benefit the wider community. For us, a key part of that benefit is climate action. There are various activities, including generation of electricity, through which communities can address fuel poverty, and local hydrogen production for retail. A key element of those is climate action. The big developers, in particular through the Scotwind scheme, are actively looking for ways in which they can contribute to climate action locally. We engage them indirectly through the regional deal, although I have to say that the deal is not specifically focused on net zero.

Fiona Hyslop: With regard to use of that mechanism, there has been recently been the islands deal.

Thank you for that. I am conscious of the time, convener, so I will pass back to you.

The Convener: Next up is Jackie Dunbar. Over to you, Jackie.

Jackie Dunbar: Good morning, panel, and welcome. From your experiences of working together across the sectors, you will know about examples of good practice and successful project delivery. What are the key ingredients that have contributed to that? How might good practices be replicated in the future? John Cunningham can start, then I will go to David Harley and Simon Parsons.

John Cunningham: There is quite active crosssectoral work in heat, transport and the circular economy. We do a lot of work on heat with the local housing association, which has attracted Government funding for making homes more energy efficient. We have a particularly close relationship with SGN, which is looking to decarbonise its entire Stornoway town centre gas network in 2027. That involves converting 1,700 consumers on a single network from propane to green hydrogen in 2027, basically overnight. We have a very close and constructive working relationship with SGN in particular. We are looking to work with our renewable energy generators to see, where we have shared ownership agreements in onshore wind, whether there is some way that we can use that energy. We have around 80MW coming into the hands of the community, so perhaps we can use that to supply consumers on the island, going directly from generation to consumption. In that way, we would avoid UK-wide transmission charges and shareholder dividends, and reduce the cost of energy. Fuel poverty is a real big issue here.

We are also working with colleagues across the Highlands and Islands on electric-vehicle charging points and various other transport initiatives.

As for the circular economy, the big thing is aquaculture. We are using anaerobic digestion to turn fish waste into methane electricity and hydrogen for the council fleet, with the oxygen byproduct going back into the fish-farm hatchery. That is a really good example of the circular economy. In answer to your question, I say that there is strong collaboration across the sector.

11:15

Jackie Dunbar: Do you have advice for people who might want to move forward with projects that you have developed? What would be the best way of making contact with them?

John Cunningham: We have to engage with industry. Historically, the local authority has not done so, but it is now becoming critical that we engage with the private sector. We are now very active in that respect; we deliberately go after the private sector and investors. Indeed, that is the only option that is open to us, as local authority budgets decline. The only advice that I would give local authorities is that they should get out there, promote their offer to the private sector and really engage with it.

Jackie Dunbar: David, do you want to comment?

David Harley: I will make some general reflections, then highlight an example.

Good governance and good structures are needed, and the people involved have to be given time, which brings us back to collaboration. Collaboration takes time and does not happen by accident; you really need to invest in it.

You also need a bit of luck, because this sort of activity requires the right people and the right champions. If you get the right champions together and you have the time, you can get great results. All that leads to the kind of confidence that helps in respect of funding, and the communities that are involved feel and see that confidence and seriousness. I will point to an example in Grangemouth that I think is a great case study at almost a global level. Historically, the petrochemical industry in the area has contributed to the climate emergency. The waters there are now rising and the area is at flood risk. There is also a just transition issue. What is the net zero just transition solution for an area such as Grangemouth, given its importance to the country?

We have, with the local authorities, the Scottish Government and the private sector, a quite established governance framework within which we can try to make inroads into the problem. SEPA sits on what is called the Grangemouth regulatory hub, in which we think about how we work with others, about investment, about the regulatory landscape, about how we ensure that we do not have environmental deterioration while we transition, and about potential transitioning models. The hub has huge potential; it has been up and running for a while now, and is a good example and a great case study. If we can make it work there, it can be a fantastic example for the world.

Jackie Dunbar: Simon, do you have anything to add from the Scottish Water side of things?

Professor Parsons: I will build on the comments of the previous two witnesses.

In the big challenges that we face at the moment—for example, getting to net zero and adapting to climate change—nearly everything that we do involves working in partnerships. There is no single solution that we can provide on our own.

Partnerships are hard work. They need the right people and the right passion. They need time, as David Harley has just described. They need real alignment between organisations to solve the problems in getting things together. There must also be a route to funding because, in the end, funding is what the solutions often need.

I want to highlight an example in Glasgow that we have been involved with for many years. After flooding back in 2002, an organisation called the Strategic Metropolitan Glasgow Drainage Partnership was formed. We have replicated that model across Scotland. The partnership was brought together not just to deal with flooding challenges in Glasgow but to ensure that development could occur, and to improve the water environment, particularly the River Clyde. Hundreds of millions of pounds have been invested by Scottish Water and by our customers in the city deal and so on to ensure that it works. However, it is hard work.

I highlight a fantastic scheme called Smart Canal, which is enabling a brand new development of thousands of houses in the north of Glasgow. It is spectacular, and we are now celebrating it globally as a fantastic way of joint working. That was tough. In the end, the toughest part was agreeing, jointly, how we would fund the scheme. We now have a scheme in the north of Glasgow that we are incredibly proud of and which is enabling growth, development and biodiversity—all the things that we are talking about now. However, it took an awful lot of work and some very really resilient people in Glasgow City Council to move it forward.

Jackie Dunbar: Do Julie Waldron and Nick Halfhide have anything to add? Please do not feel that you must say something.

Julie Waldron: I will reflect on what has been said about partnership. It is time consuming, great fun and we learn a lot from each other. Every so often we have light-bulb moments when we say, "Hang on, I didn't realise that you do that in your process in your organisation. We do this in the planning process, so perhaps we can join things up better". However, all that takes resources and time. As has been said, people have to get on with each other. That is really important. Luckily, in the Edinburgh group, we find that it is fun as well as work. We are trying to move things forward very quickly.

Monica Lennon: I briefly mentioned national planning framework 4 in a question to Julie Waldron earlier. NPF4 emphasises climate change and biodiversity loss and sets out policies that local development plans should support, such as the use of nature-based solutions and natural infrastructure. Has recent local policy and decision-making reflected that direction of travel? I put that question to John Cunningham first and then other witnesses can come in.

John Cunningham: Our current local development plan is coming to the end of its term, so we are in the process of developing the new plan for 2023 onwards. The current plan is quite strong on climate, with low-carbon building requirements, active travel, effective siting of dwellings and EV provision. There are standard provisions in the current plan.

In the new plan, linked to NPF4, we will be looking at identifying areas for development specifically for low carbon and climate action. I see a much stronger approach in the new development plan period to that whole agenda. We will be looking at the feedback that we get from the CoastAdapt project and some of the data coming out of the Dynamic Coast 2 project. We have to interpret that locally and see how it can be implemented. I see all of that feeding into a much stronger local development plan from 2023 onwards. Nick Halfhide: I wanted to add that how we manage the land and sea crosses over to development control. One of the things that we are going to need to spend more time on is considering how we align the planning system with our land management and sea management systems. As Julie Waldron was saying earlier, it is not just about what we do where but about how that is all managed. That includes how things are managed upstream, perhaps in a more urban, more controlled planning system. That interface will become more important.

David Harley: There is great potential for NPF4 to help. It significantly strengthens requirements for developers and other such work.

I was fortunate to have to been on a site visit a couple of weeks ago at the Clyde Gateway. It demonstrated the importance of the requirement to get the infrastructure in first, particularly naturebased, blue-green infrastructure. I am talking about a large part of south-east Glasgow that was very heavily industrially contaminated. The area has been cleared and redeveloped. We saw that the company has put in the blue-green infrastructure-those systems that we talked about previously-as well as district heating lines, pipework and capability. As Simon Parsons knows, the nearby sewage works has the potential to provide the district heating. Having the foresight to put that infrastructure in first means that you are teeing it up to succeed from the outset. If the national planning framework had a fairly strong requirement for that approach, particularly with regard to new developments, that would be very helpful, if not essential.

Monica Lennon: It is good to hear you mention the Clyde Gateway. There is a lot of success to celebrate, but the contamination issues are an ongoing challenge. Anyone in the Government who reads today's *Official Report* might want to have a look at that.

How can we ensure that planning departments have the right tools and resources to encourage and embed nature-based solutions and natural infrastructure? We often hear that planning can be a barrier or can be slow and we know that planners have to work with and take into account many different stakeholders. Julie Waldron, do you feel confident that you and your colleagues have the right tools or that the right resources are coming your way?

Julie Waldron: Our city plan for Edinburgh has gone through committee, so we are in the process. We put in very strong policies about green and renewable infrastructure and surface water. We wrote the policies with the support of NatureScot, Scottish Water and SEPA. There is quite a shift. The city plan aligns with NPF4, so we hope that that will give us the requirements, once it is in policy and is agreed.

In the interim, we have our water vision, which is a collaborative document that was written by the council with Scottish Water and SEPA and sets out nine objectives. Now that that is a material consideration in planning and is also part of nonplanning projects, such as roads projects or permitted development projects, it is being used by people in the private sector to help them do what they want to do, which is to do a really good job. They are feeding back to us, which is fantastic.

We have set the criteria that we were going to have as part of our policy, but we have put them in place up front so that they could go through committee now. Those criteria look at sustainable urban drainage systems and ask for drainage to be treated on plot rather than across the site, which is driving forward the use of green roofs, swales and rain gardens.

There has been a shift. People are quite excited, because they want to do something really good. We need to put the policy in place, because these things take up space. There is some conflict in wanting high-density development. It causes tall buildings, which is fantastic, but the downside is that it causes shading, which brings the need for rain gardens and sunlight. Rain gardens take up space, which is required by other planning policies that say that people should be provided with gardens. Development space is now needed for nature-based solutions and is also required by people who might want to be able to go out and kick a ball with a child. There is an interesting relationship between that and high-density building, which drives up the amount of deep shade and then has an impact on space.

We are looking at all those different things and trying to balance them. That is the situation. We have the water vision, which is extremely helpful, and hope to have those stronger policies. The consultancies want to do a really good job. Having that policy in place helps them in their negotiations.

Monica Lennon: David Harley, you used the example of Grangemouth, which I think you called a "regulatory hub". You said that that has huge potential. People might not get excited about the prospect of a regulatory hub. Can you tell us a little more about it? If that works well, how will you and the other partners involved spread the word about that good practice? Are Government and partners looking at that as a model that can be transported elsewhere?

11:30

David Harley: I am not sure whether it has been looked at as a model, and I cannot give you much more detail because I am not directly involved, but I might be able to follow that up with some information about the regulatory hub and that whole framework.

However, yes, absolutely, getting regulators, the private sector, the community and—critically, because it has a lead role—the local authority involved in that partnership and structured collaboration on what is an existential issue for Grangemouth and that community is the only way to come up with the solutions.

The term "regulatory hub" might not be the most exciting, but the regulations are important. We regulate several very large installations with all sorts of environmental risks, and that transition is going to have to happen in some shape or form over the next decades. Ensuring that the regulations protect the environment during that transition but also that they enable the transition is a crucial element.

It is probably best that I send further detail on that to the committee after the meeting so that you can have that and, possibly, share it. Government has a key role to play in that governance framework.

Monica Lennon: Thank you, David. It would be helpful if you could pass that information on to the committee, because when we hear about examples we are keen to hear more. It could be part of our recommendations to share that. Simon, do you want to add anything?

Professor Parsons: I want to build on one of Julie Waldron's earlier comments. A key part of achieving wider use of nature-based solutions for surface water management, especially in cities and large towns, is the real challenge that we have in Scottish Water of educating, informing and getting our own people excited about such solutions. We are a group of individuals who are incredibly good at engineering, so we look for engineering solutions. Nature-based solutions are different in the sense that they are not quite as hard in engineering terms-they are softer solutions. Therefore, a big challenge for us is to ensure that our own teams-as well as teams such as Julie Waldron's, David Harley's and others-understand what that infrastructure is about. We need to ensure that they can see examples of it and that they understand how we maintain such solutions, because often the biggest barrier that is put in the way of that type of solution is the fact that we do not know how to maintain it.

We have been doing some work looking at organisations globally that are ahead in blue-green infrastructure. We have been looking at what barriers they have overcome and what measures they have put in place to learn from them. For example, Julie Waldron and her colleagues had a very good session with Philadelphia recently. We learned from its experience of putting that type of infrastructure into cities—what worked, what did not work and what lessons it took from that. That is great learning for us, and we need to spread that out to the wider teams and ensure that there are more examples that people can look at.

Monica Lennon: That is helpful. One of the challenges that we have heard about during the inquiry is about time and capacity—having time to learn, exchange practice and network, not just within Scotland but internationally.

Liam Kerr: Good morning. My first question is to John Cunningham. Throughout the inquiry, there has been a concern about the lack of financial resources available to local authorities to deliver net zero goals. I am thinking about your earlier remarks. Do you feel that investment for nature restoration and natural infrastructure reflects the importance of those matters within local authorities but also—given the significant lack of funding for councils from central Government, which you mentioned earlier—the non-ring-fenced resources coming to local authorities from central Government?

John Cunningham: We need an acceleration of that kind of funding for these solutions. As I said, our core budget has seen the worst decline across Scotland. These new solutions are not as expensive as the old-fashioned grey solutions.

We are considering approaches such as planting kelp forests; with the energy of the ocean, maintaining a stable machair system as a front against the climate; identifying sacrificial land which would mean compensating parcels, someone for coming off that land and giving them land somewhere else; and rerouting inland roads away from the coast. Those are not very expensive solutions, but we need to accelerate the funding process. There seems to be a lack of imagination at some levels, in that people just envisage grey infrastructure as being the answer. However, that needs a huge amount of funding, which just becomes a blockage. With smaller, targeted funding, we could go a long way towards addressing our needs through green solutions.

I go back to Nick Halfhide's point in the previous discussion about aligning onshore and offshore planning. As a local authority, we are involved in a pilot that will see us taking over Crown estate management in our own marine environment and also moving towards regional marine planning. As part of a regional marine plan, we would have a delivery plan that would identify how much funding is required, how it can be got and where the resources are. We are starting to look at how we can enhance our existing funding for those new solutions.

Liam Kerr: I am very grateful. Julie Waldron, would you like to add to that?

Julie Waldron: Yes. Like other cities, Edinburgh has very old areas, such as our world heritage site. The complexity comes when we consider how we can retrofit in such an environment so that we do not damage the character that has led to it being designated in that way. That requires sensitive design.

Underneath the ground, we have a plethora of unknowns such as underground passages and services that we did not know existed. Those came up through the tram project; some of the major issues there were because of the discovery of services that no one knew were there. We are digging down to retrofit such elements. In a city scenario, that can be very complicated, so the design time is longer and the funding that is required is greater. There is a tremendous amount of negotiation with Edinburgh World Heritage and Historic Environment Scotland, which realise the position and want to work with us. However, as we were discussing earlier, working collaboratively with lots of people takes a lot of time. We have to ensure that everybody's views and considerations of what is important to their area of work, such as the world heritage site, are fully understood by the whole design process.

When it comes to retrofitting in an urban scenario, funding can be quite complicated to obtain, but we need it. The City of Edinburgh Council would say that its resources are already being spent fully in carrying out its day job. We require to do more, because previously we did not need to negotiate and work quite so collaboratively. That requires time, energy and effort, so there is pressure on resources.

Liam Kerr: I am very grateful. Nick Halfhide, on the point that Julie Waldron has just pulled out, how could more effective partnerships—including leadership from senior staff and elected members—and policy levers for local authorities support the use of natural infrastructure and nature-based solutions at local authority level? Allowing for the complexities of leveraging private finance that you mentioned earlier, can that be done without a fundamental reassessment of local authority funding by the Scottish Government?

Nick Halfhide: Gosh—that is a big question. I cannot speak on behalf of the Scottish Government, but I can give the committee an example that ties into Fiona Hyslop's earlier point about how we have a start on doing this in the marine coastal environment. That also links in well to what John Cunningham said.

We have recently launched the Scottish marine environment enhancement fund—SMEEF—which pulls together public funding through an allocation from the nature restoration fund and contributions that we are inviting from developers into a central pot. Those are mostly offshore wind developers, but they do not have to be. We can then work with local authorities and other coastal communities to invest that back into our coastal areas to make them more resilient to climate change and also make those ecosystems more robust and so help to tackle the nature crisis. That is a good example in a fairly specific ecosystem—the coastal offshore environment-but there is an opportunity to replicate that more widely across our terrestrial environments.

Increasing the pot of money from various sources, and having an easier place to access significant funds for green infrastructure, would hopefully address Julie Waldron's challenge earlier, when we talked about having the equivalent of Sustrans, but for nature, and a bigger pot within a central body. Obviously, if you are taking private money, that would need careful governance.

Liam Kerr: Does anyone else on the panel want to come in on effective partnerships or funding for local authorities?

David Harley: Julie Waldron said something really insightful when she talked about her day job. It has come across quite a few times this morning that we absolutely need to invest in the time to do the collaboration—it will not happen without it. Partnership like that takes time, and the right people being given the right amount of time. The danger with the increasing squeeze on public finances is that each organisation, including ours, is restricted to doing what we see as our day job, whatever that may be, or departments might constrict us to what our day job is. I guess that we want to try to invert that, because the day job should be what we are talking about today. There is something critical there.

Liam Kerr: I understand. Thank you.

The Convener: Our final question is from Natalie Don, who is joining us online.

Natalie Don: I thank the witnesses for their answers so far.

We have touched on some of the issues surrounding private finance, but what are the key challenges relating to partnership working as a whole between the private and public sectors, including the enterprise agencies? Can you provide some detail, and any relevant examples, of ways in which your organisations are working with the private sector to deliver nature restoration and natural infrastructure projects? I will go to John Cunningham first, because he touched on his partnership working in a previous response.

John Cunningham: We have a very good working relationship with the enterprise company. We tend to divide up the effort—the local authority will engage with developers, look at community liaison and lobby for grid and regulation solutions and, at the same time, the enterprise company will look at supply chain development, land availability, industrial support and Government connections. It is very much a combined effort by the two of us: the local authority and Highlands and Islands Enterprise.

Our main challenge with private sector involvement is that it is voluntary. In relation to offshore wind and ScotWind, when Crown Estate Scotland issues leases, or options to lease, it does not take account of community benefit, and nor does Marine Scotland when it issues consents for those schemes. Crown Estate Scotland looks at supply chain benefit, which relates to the 25 per cent of the supply chain that is sourced in Scotland, but, to us, community benefit is much wider than that. The supply chain includes jobs that are directly created in the process of building and operating a wind farm. Community benefit is a sign of good will by the developer that it will support a community to become sustainable, address fuel poverty and decarbonise, which are much wider objectives. The problem for us is that that can only be voluntary-nobody is enforcing that. With onshore wind, you can tie developers down to a section 75 legal agreement, but there is no such provision for offshore wind. We are talking to Marine Scotland about that at the moment.

There is huge scope for private partnership with developers, which spend tens of millions of pounds just for an option to lease a site for an offshore wind farm. They have eye-watering resources available, and they are very willing to come in with us on community projects that address fuel poverty, climate change and decarbonisation. However, the challenge is that it is all voluntary.

Natalie Don: Does Nick Halfhide have anything to add?

Nick Halfhide: I have been racking my brains, because although there are many good examples around the country, they are all slightly different. I have alighted on two, if you will indulge me.

One example is in the flow country, up in Caithness and Sutherland, where we are using the potential of a UNESCO—United Nations Educational, Scientific and Cultural Organization world heritage site to bring together the public sector, the private sector and communities. That is very much about working with all the different land managers to get investment in peatland restoration, which is mainly publicly funded but is increasingly privately funded. In that way, those benefits can go to individual land managers and to what are often small-scale crofting communities, who will see that there is a future for that resource and its better management. That has benefits for the biodiversity on the peatlands. We then move into Simon Parson's area about how that resource will be better managed to reduce flooding and improve water quality—how you can get all those win-wins. The key to that is bringing the land managers together, many of whom have only a small amount of land. There are many of them, as well as the big land managers.

11:45

The second example, which is at the other end of the country, is the Tweed Forum. We are working with those who manage the River Tweed—a mixture of a lot of private individuals, but public interests are also involved—to look at how that river system can be better managed. That will improve the quality of the salmon, which is often where the private interests are, and it will involve a lot of tree planting and peatland restoration, which will regulate the flow and, it is hoped, reduce flooding, the devastating effects of which we have seen in towns such as Selkirk and Galashiels over the years.

Those are really good examples of publicprivate partnership. I go back to the point that you have heard ad nauseam: it takes a lot of time and investment to build trusting relationships and work out where everyone is coming from. It is a bit like a mass dating exercise that involves understanding who everybody is, what their interests are and how you can find common ground and move forward in partnership. If you are to manage great river systems or great expanses of peatland, that has to be done at scale within that landscape. However, those are two examples.

Natalie Don: It is interesting that you brought communities into that, too, because they are a key part of that. From my experience of being a councillor, I know that the public are generally supportive and sympathetic to green agendas, but their participation is key. In my experience, with regard to biodiversity, communities did not like measures being forced on them, but their reaction when they actually got the chance to be involved was completely different—they felt more empowered.

How well do you feel that your organisations and councils involve local communities in decision making on such projects and support communityled initiatives? I will come to Nick Halfhide first, but I also want to bring in a few of the other witnesses.

Nick Halfhide: Our experience-it has taken us a while to get here-is that the most successful projects are the ones in which you bring in the community and listen to what they want soonest. I will give you a good example. We have been doing some retrofitting of green infrastructure in some of the more deprived parts of Glasgow. Initially, people expect us to go in saying, "What you all need is this", but we say, "No, that is not how we do this." We tell people, "These are the broad parameters, we have some money available, and we want to help you to refashion a concrete area into something green-what do you want?" They say, "We want somewhere for the kids to play. We want this. We want that." We then build that in from the start. Therefore, what we end up with is something that we, as experts, might not have thought that we would have, but, because it is what the community wants, it is a success and, crucially, we then have buy-in and people in the community want to manage it, so it becomes theirs.

Spending quite a lot of money on community engagement and building relationships before we do the hard work on the ground is the only way to success. Otherwise, you end up with a complete white elephant and nobody is happy. We have learned the hard way that that is the way to do it, and that is true whether you are talking about Cardonald in Glasgow or some of the more sparsely populated rural areas. You need to get buy-in from the community so that they can see the benefit, and then it becomes theirs. It helps to deliver all these other things, too, but it becomes their thing, their contribution and the place where they want to live.

Natalie Don: Absolutely. I will come to Julie Waldron next.

Julie Waldron: I absolutely agree with all the points about buy-in. My experience of community consultation on flooding and river restoration-type projects is that people find it quite frightening to be presented with engineering drawings, because there are lots of lines, numbers and levels to look at. If you present sketches and—I will go back to them again—proper green plans and then build on that with them, using sticky notes, to get their ideas, it becomes very interactive and you get a much better solution at the end of the day, which will be welcomed much more by the community.

Again, we come back to the issue of time. It can be quite time consuming to have really good engagement with the community as opposed to having an information session. There is quite a difference between just arriving somewhere and saying to people, "This is what we're going to do. What do you think?" and the much more collaborative activity that Nick Halfhide was talking about, with people sitting round tables and coming up with really exciting ideas.

Funds are also needed to build those ideas into With, say, surface water the schemes. management or flood prevention schemes, there are cost benefit and funding issues to consider, but the question is how we get the funds to do the things that the community really wants, which might include having a barbecue area or a pond dipping platform for the local school. Those sorts of things do not necessarily come through when we measure cost benefits; how you measure cost benefit adds complexity to flood prevention schemes, and the issue is understanding the benefits that come from what are really quite small amounts of money. After all, it makes a huge impact on the community whether a bridge, say, is a little one that you can play poohsticks on or is something ugly and functional. That is the difference, and working with the community is key to getting its ultimate buy-in to a new landscape. After all, people can be quite concerned about change and take it very differently, and you have to manage that and reassure them by showing them the ultimate vision of where you are going, even if it takes three or four years for the plants to start to grow.

Our parks department does a lot of community work, and we are building community consultation into all of our green-blue neighbourhood projects in Edinburgh. I should talk about "engagement" rather than "consultation"; I am always nervous about using that word, because it sounds as though you are telling people what they will get when what you really want to do is engage them in the process.

Natalie Don: Absolutely. Actually, my next question was going to be on consultation. As you have said, there is no use in just asking people for their opinion on proposals, but the committee has also heard a lot about consultation fatigue or, indeed, consultations not always reaching everyone. Do you agree that we need to find new ways of interacting and engaging with communities?

Julie Waldron: Absolutely. Obviously, there are people who are able to come out in the evenings, but there are others who cannot, because they have small children, work night shifts and so on. There are a thousand reasons for not getting a good spread.

However, short YouTube videos might bring in the teenage population. I remember that, at a community consultation in Craigmillar, a group of teenagers stood on the other side of the road but would not come in, because it was just not cool to go to a council consultation event. I went across the road to speak to them, because it seemed the only way of interacting with them. Doing things online is key, too. We need to use all the different ways of reaching people to ensure that we include all parts of the community, not just that small, distinct group of people who are able to come out at 7 o'clock in the evening. It is an important issue.

Natalie Don: I know that we are short of time, so, unless any other witnesses want to come in, I am happy to pass back to the convener.

Professor Parsons: I would like to finish by highlighting a fantastic example that, I think, pulls together exactly what Nick Halfhide and Julie Waldron have been talking about. We are trying to deal with a historical problem in an area of Dundee called St Mary's. Instead of engaging with the community at the point of making a decision, we have done as Nick Halfhide has described and have gone and talked to them about how they can help and what we can do. The scheme in St Mary's embraces a lot of what the witnesses have talked about with regard to engaging communities, nature-based solutions, place making and-to be honest-dealing with the underlying problem of flooding, and I encourage anyone to have a look at it. In the end, it will not just improve the flooding situation but transform the local park, result in cycle paths being provided and give opportunities to play poohsticks-in fact, all the things that the local community wants to have. I also imagine that, in the end, it will cost less than a traditional hard-engineering solution, so it is a win-win-winwin for everyone involved.

Natalie Don: Thank you for highlighting that example.

The Convener: That brings us to the end of our allocated time, so I thank our guests for their wideranging overview of the main challenges and opportunities and for the policy requests that they have made. It is very much appreciated and will inform the committee's final report. Enjoy the rest of your day.

That concludes the public part of our meeting. We now move into private session.

11:55

Meeting continued in private until 12:45.

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