



OFFICIAL REPORT
AITHISG OIFIGEIL

Net Zero, Energy and Transport Committee

Tuesday 18 April 2023

Session 6



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NET ZERO, ENERGY AND TRANSPORT COMMITTEE
12th Meeting 2023, Session 6

CONVENER

*Edward Mountain (Highlands and Islands) (Con)

DEPUTY CONVENER

*Fiona Hyslop (Linlithgow) (SNP)

COMMITTEE MEMBERS

*Jackie Dunbar (Aberdeen Donside) (SNP)

*Liam Kerr (North East Scotland) (Con)

*Monica Lennon (Central Scotland) (Lab)

*Ash Regan (Edinburgh Eastern) (SNP)

*Mark Ruskell (Mid Scotland and Fife) (Green)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Kenny Bisset (Fife Council)

Dom Callaghan (Glasgow City Council)

Shauna Clarke (City of Edinburgh Council)

Dr Gary Fuller (Imperial College London)

Stuart Hay (Living Streets Scotland)

Craig McLaren (Royal Town Planning Institute Scotland)

Gavin Thomson (Friends of the Earth Scotland)

Paul White (Confederation of Passenger Transport Scotland)

CLERK TO THE COMMITTEE

Peter McGrath

LOCATION

The Mary Fairfax Somerville Room (CR2)

Scottish Parliament

Net Zero, Energy and Transport Committee

Tuesday 18 April 2023

[The Convener opened the meeting at 09:30]

Decision on Taking Business in Private

The Convener (Edward Mountain): Good morning, and welcome to the 12th meeting in 2023 of the Net Zero, Energy and Transport Committee. The first item on the agenda is consideration of whether to take item 3 in private. Item 3 is consideration of the evidence that we will hear today on air quality in Scotland. Do members agree to take that item in private?

Members indicated agreement.

Air Quality

09:30

The Convener: Agenda item 2 is a round-table discussion as part of our consideration of air quality in Scotland. I refer members to the papers for this item.

The committee has a role in scrutinising the Scottish Government's air quality improvement plan, which was prepared in response to a report by Environmental Standards Scotland that looked at nitrogen dioxide levels in Scotland. As part of our formal consideration of the improvement plan, the committee has also agreed to examine wider issues in relation to air quality policy. We launched a targeted call for written views in February and agreed to invite a panel of stakeholders to give evidence on the issue.

I am therefore pleased to welcome Stuart Hay, director of Living Streets Scotland; Craig McLaren, director of the Royal Town Planning Institute Scotland; Gavin Thomson, air pollution campaigner for Friends of the Earth Scotland; and Paul White, director of the Confederation of Passenger Transport Scotland. Joining us remotely is Dr Gary Fuller, UK Research and Innovation clean air champion and senior lecturer in air quality measurement at Imperial College London. Good morning to you all. Thank you for accepting our invitation and thanks to those who provided a mass of written evidence. We are delighted to have the panel here this morning.

We have allocated about an hour for questions, but we will see how we go. Committee members should try to direct questions to the person whom they want to answer them. Not all panel members will get a chance to answer every question but, if you feel that you are being left out, you can indicate to me, and I will try to bring you in to make sure that everyone gets a fair chance to answer all the questions.

The first questions are from the deputy convener, Fiona Hyslop.

Fiona Hyslop (Linlithgow) (SNP): Good morning, and thank you for joining us. I will direct my first question, which is an introductory question, to Dr Gary Fuller and Gavin Thomson. I want to get an understanding of what you consider to be the main sources of air pollution and their impact on human health and the environment, and of how concentrations of pollutants have changed in recent decades. I am sure that you could give a whole lecture on that, Dr Fuller, but it would be helpful if you could just give us a brief introduction.

Dr Gary Fuller (Imperial College London): I will start with the main air pollutants of concern. A

lot of the function of this committee and of today's meeting focuses on nitrogen dioxide. The reason for that is partly the limit values and targets that we use to govern our policy. When it comes to the health impact, we talk less about polluting particles, which are mainly PM_{2.5}, but, if we look away from the legal limits that we have in Scotland, the United Kingdom and Europe and towards the World Health Organization, we find that we should pay a lot of attention to both pollutants.

There is a lot of evidence. It is fair to say that the way in which we view air pollution through limit values is based very much on the science of the 20th century and has not really caught up with what we have found in the 21st century. More recently, we have found that the harm from air pollution extends below the limit values that we have set. That raises an important question of whether we should frame our work differently in order to bring about changes. Canada, for example, has a system of continuous improvement rather than focusing just on the most polluted places, and it has a commitment to keep clean areas—those that already enjoy good air quality—clean. I hope that that provides some context to what we are talking about.

What we know about the health impacts of air pollution has advanced a great deal in the past 10 years. It has been 70 years since London's 1952 smog, which taught us that bad incidents of air pollution were killing people. Through the 1990s and at the end of the 20th century, we learned that decadal exposure was affecting people's health. Now, the latest research focuses on a life course: evidence that air pollution affects our health before birth, as children mature and grow up, throughout adulthood and into the end of life.

That extends beyond things that we think about, such as asthma or early deaths. New evidence is appearing, for instance, on air pollution and dementia. I emphasise that this is still developing, but it changes our perspective: we must think about the times when people were exposed to the original air pollution that affected their health or harmed them; then, we need to think about the times, perhaps later, when air pollution exacerbates the harm that has already been done.

Changing our policies in this way or thinking about it differently might lead to a different emphasis. Rather than just trying to tidy up the most polluted places—the city centres, for instance—perhaps we should think about focusing on where vulnerable people are. For instance, children and their time at or routes to school could be one example.

Sorry, you asked me three or four questions, and I am not sure that I have covered them all. Please, ask again if I have missed one.

Fiona Hyslop: That was a very helpful introduction, and I saw Gavin Thomson nodding at a great deal of it. Gavin, you do not need to repeat what you agree with, but is there anything that you want to add to give us your perspective and context?

Gavin Thomson (Friends of the Earth Scotland): Good morning, everyone. I will just make a couple of quick points. Item 3.7 in the Environmental Standards Scotland report states:

“Increasing studies suggest that NO₂ and other air pollutants, are ‘non-threshold pollutants’”.

In other words, as Dr Fuller says, we are seeing health impacts at every level, and sometimes far below the legal limit values that have been set. Dr Fuller talked about nitrogen dioxide, and cities across Scotland have been breaching the legal standard for NO₂ for a long time, but we also want to think about particulate pollution. NO₂ is from the exhausts of diesel vehicles, and we have an excess of older diesel vehicles in particular. Particulate matter comes from a much wider variety of sources. With regard to traffic, we should think about not just exhausts but tyre and brake wear. That might become relevant later if we talk about the shift to electric vehicles. If we have loads of EVs, we will still have a fair bit of particulate pollution from tyres and brakes. Sorry—by EVs I mean electric cars. I have already slipped into jargon, for which I apologise.

The main points are about the nitrogen dioxide in diesel fumes, and the fact that particulate matter comes from not only exhausts but tyres and brakes.

Fiona Hyslop: I will move to Stuart Hay. Stuart, where is Scotland's current performance in meeting international air quality limit values? What pollutants do you consider to be the most challenging?

Stuart Hay (Living Streets Scotland): Thank you for the opportunity to speak to the committee. Obviously, we are making progress but, to a certain extent, we are doing so by default through going down a technological route. We are setting cordons and restricting vehicles. The challenge is around what more we can do and what an LEZ looks like for the people who live in it. It is a very technocratic approach, and we are treating one symptom, which is the air quality issues. There is a whole load of other things, mainly to do with there being too many cars in an area, road casualties and the issues around particulates. We might be making progress on NO_x, but we do not know whether we will tackle the problem with particulate matter in the long term.

We have an approach, and we are making progress, but we could be doing so much more. It is about taking a holistic approach: we need to

think about people's lifestyles and about how communities work, rather than setting certain thresholds. The people who live in those areas do not, I think, really understand them, so there is a big communication problem.

Fiona Hyslop: I will move to Craig McLaren. We went through a period of Covid-19 lockdowns that changed behaviours, and we have an energy cost crisis. You might have a view on places, people and streets but, more widely, how has that affected trends in air pollution more recently?

Craig McLaren (Royal Town Planning Institute Scotland): During Covid, things were very different. It brought in a new way of thinking for people and a new appreciation of what places were like and how they could be nice places to live, work and spend time in. I am hopeful that there is a greater appreciation of how a place-based approach can be made to work. As Stuart Hay touched on, there probably is a need to embed more of the thinking around place-based approaches, which are much more holistic, in how we take things forward. People can relate to those more easily, because they are more worried and concerned about or interested in how their place will develop over time.

It is about how we can embed that in how we do things. I argue that planning, planners and place-based approaches are a key way of doing that. The low-emission zone sits in one realm in some ways. How that relates to the broader place-making principles and how a place can be made more attractive to people are questions that are up for discussion, to be honest.

There is a need to take a much more integrated and holistic approach and, as part of that, to make sure that the approach that we take either makes our places attractive to people or stops them doing certain things. That behaviour change is really important. If you take a place-based approach, you can put in place measures that encourage people to do things such as walking or cycling, rather than take their car everywhere, or discourage them from doing things—for example, trying to negate the need for unnecessary car journeys, which can lead to pollution. That broader approach is a really important strand of how we should take things forward.

Fiona Hyslop: I will come to Paul White. The lockdowns had a major effect on transport, and bus passenger levels have not yet gone up to pre-Covid levels. How has that affected trends in air pollution over the past few years? Obviously, there has been a shift to electric vehicles as well. What is that doing to improve air quality?

Paul White (Confederation of Passenger Transport Scotland): Thanks for the opportunity to speak. We saw some trends throughout the

Covid pandemic and lockdowns. We did not have the same level of car traffic. Cars were off the road, because people were in lockdown. However, the bus network was still running for key workers in lifeline services to allow them to get to their place of work. We saw how buses can operate in the absence of congestion: there were improved running times and lower operating costs. As the lockdowns were removed, people started to come out and returned to their cars. There is still a remnant of fear about public transport, perhaps because of some of the messaging throughout the pandemic around avoiding enclosed spaces. Congestion bounced back, and we saw a real return to vehicles, including more modern vehicles.

We should take a place-based approach, but, if you took a technological approach by replacing older vehicles with Euro 6 vehicles—the newest version of diesel vehicles—or zero-emission buses, you would find that their ability and capacity to operate cleanly is limited when they are stuck in traffic. A major trend has been the bounce back in congestion. As a sector, we still feel the impact of the pandemic—patronage is still below where it was pre-pandemic. Clearly, in a cost of living crisis, costs are up, and we are struggling to get the balance right in providing a network of services that is attractive to people so that they will leave the car at home and use public transport.

Funds such as the bus partnership fund, through which we can invest in bus priority measures and free buses from congestion, will, I hope, allow us to return to the freedom that we saw throughout the pandemic, although perhaps not exactly. Freeing buses from congestion will lower emissions and improve the offering that people look for when they make their travel choices.

Fiona Hyslop: How closely does your organisation monitor emission changes as a result of the shift from older vehicles to more modern ones with reduced carbon emissions?

09:45

Paul White: If you look at the different Euro standards for engines, you will see the pollutants associated with those standards. Engines range from those in older vehicles, such as those with a Euro 3 engine, to ones with a much cleaner engine, such as the Euro 6. I cannot, however, talk with any degree of certainty about the performance of those engines, as it is somewhat linked to their ability to perform, so a vehicle that is running at set speeds and not having the stop-start that you might associate with urban travel will have a different emissions performance.

Fiona Hyslop: I have one final question, which is again to Dr Fuller. Are you aware of anything in the energy price crisis that may have impacted on air quality or anything else on that agenda?

Dr Fuller: That is a really good question. So many people have been struggling to keep warm in their home and have met so many challenges throughout this year.

The short answer is that we are yet to analyse the data. The slightly longer answer is that, at the start of winter, we were concerned that the fuel price pressures were going to encourage people to turn towards burning a lot more solid fuel. We already know that, in many areas, that is the largest source of primary particles. We have seen in other places, such as in Greece during its financial crisis, that people turn to burning wood. We have not yet analysed all the data that will tell us whether last winter was different from the winters before, but I rather fear that it was, based on the anecdotal evidence and the data from stove sales and wood sales.

Fiona Hyslop: Thank you.

The Convener: Paul White talked about LEZs and Euro 6 engines on buses. Is there a fear that LEZs in major conurbations that require Euro 6 bus engines will push those buses that do not meet the Euro 6 bus engine standards into rural settings, where there are not LEZs, or is that nothing to be worried about?

Paul White: Some of the evidence suggests that areas outwith an urban centre will benefit from having an LEZ, given that bus routes tend to be from the outskirts into a city centre rather than only in a city centre. There is, however, a degree of cascading within operations. Larger bus operators that operate in urban centres and perhaps rural areas may move some vehicles that do not qualify for the LEZ to another area.

We are in the midst of accelerated fleet renewal in order to meet Government targets for zero-emission vehicles, and it is those vehicles that might be moved that would perhaps be the ones that would be replaced. Another aspect is that, in a very rural setting, there may be a supported network that is based on the local authority tendering the service that operates in the area. On the basis of a low-cost tender, having a minimal vehicle cost with an older vehicle may mean that an operator is more likely to win the tender.

There are aspects to consider, but I do not have set evidence that vehicles that operated in an urban centre will then appear in a rural area.

The Convener: That is interesting. I do not think that all buses that operate in rural settings go into LEZs. For example, there is no LEZ proposed for the Highlands, although perhaps we will see one

proposed. I am not suggesting that we will, but we may see more non-Euro 6 engines, or perhaps not.

Mark Ruskell (Mid Scotland and Fife) (Green): I will go back to Gary Fuller and ask him about the WHO limits. Should the Scottish Government be adopting those limits? What would be required of us if we were to step up to adopting those limits?

Dr Fuller: That is an excellent question. The legislation that we have across Scotland, the UK and Europe at the moment owes a lot of its provenance to the 2005 WHO air quality guidelines. However, the guidelines that came out last year radically changed that: the level of NO₂ has reduced from 40 micrograms per cubic metre to 10, and the level of PM_{2.5} has dropped from 10 micrograms per cubic metre to 5.

Meeting those targets presents many challenges. For instance, with the NO₂ target, even if we were to completely electrify a vehicle fleet, it is what we do about space heating that will be really important going forward. If we are going to burn hydrogen in our gas grid, that creates NO₂ in a similar way to burning fossil gas, so that will be a problem for the attainment of that target. When it comes to PM_{2.5}, there are a lot of sources that we do not regulate or really seek to control that would have to come under that umbrella.

Rather than focusing on setting new limits, a good policy response would be to map out the possible pathways to attaining them. We are just not doing that at the moment. Internationally, people have just seen the WHO's document and are saying, "Oh, there it is," but the rational response is to ask what sources we will have to bring under control that we do not already, to prepare those pathways and to think about how to do that. There has been some wonderful talk about how urban areas should look in the future—we must focus not only on now but on the future—and that could be part of that thinking as well. I encourage you to start mapping out pathways towards the attainment of WHO guidelines.

Mark Ruskell: Okay. That is useful. Do others want to come in specifically on how the targets could be delivered and what those pathways might look like? Gavin Thomson is nodding.

Gavin Thomson: In discussing the WHO limits, you will find scepticism in councils and government about whether they are ever achievable. As Dr Fuller said, we need to change our mindset and consider what would need to happen to make them achievable.

If I return to an earlier point, we probably need to think in terms of continuous improvement rather than in terms of legal compliance on air quality for the exact reason that I said: we find health impacts

even at very low levels of air pollution that are far below legal limit values. A lot of the policy instruments and legislation that we are looking at talk only about legal compliance. There is little about continuous improvement. Who is assessing, for example, whether local air quality plans or a low-emission zone plan are improving air quality year on year? That improvement could mean going from quite a high level of pollution one year to a moderate level the following year, or going from a moderate level to a lower level. We are too stuck on legal compliance and the issues around that, for some good reasons. I will leave it there.

Fiona Hyslop: I will come to Stuart Hay first and then go to Gavin Thomson. Are sufficient powers available to local authorities and the Scottish Environment Protection Agency to ensure compliance with the existing rules and regulations? Has there been adequate enforcement action to meet legal air quality limit values, or do you agree that having a focus on continuous improvement might be better than focusing completely on whether we enforce compliance with existing rules?

I ask other witnesses to indicate whether they want to come in.

Stuart Hay: I will let Dr Fuller answer on the more technical aspects. The issue of most concern to Living Streets is that we do a lot of work beside schools, but the amount of data that is available to know whether we are achieving the targets is lacking. There is also an issue with enforcement around those areas with regard to idling. Generally, that is down to councils, but they do not have the staff to go out to check and enforce. Those are the easy wins and low-hanging fruit that you could go out and get. Most sensible parents would support not having cars outside schools polluting the air that their children breathe. There are some easy wins on enforcement.

Gavin Thomson: I completely echo the point about the resources that councils have available, which is certainly a big part of the issues that we have been looking at. The Environmental Standards Scotland report identified gaps in reporting and accountability. You will perhaps find out more when you speak to air quality officers later, but I think that a lot of that is about the resources that councils have available to report and to develop ambitious plans rather than to simply have plans that, even when they are submitted—many are not—merely restate the status quo and talk about monitoring situations. There are very few interventions happening.

As an aside, that is one of the reasons why low-emission zones are such an exciting prospect—that is one of the few things that we have done measurably on air quality.

With regard to councils being accountable and reporting on actions that they are taking, there are huge gaps, as the ESS report has identified. As far as I am aware, that is due to resource constraints rather than any policy deprioritisation that we might have seen. I am sure that you will hear more about that later.

Fiona Hyslop: Okay. I am conscious that other members have questions, so I will pass back to you, convener.

The Convener: I will pick up on Stuart Hay's point about parking outside schools. I absolutely understand that in an urban conurbation. I will ask you the same question for rural settings, where there are no buses, where probably the only place to park is outside the school and where a lot of people rely on private transport to get their children to school. How do you solve that problem? Will one size fit all?

Stuart Hay: One size will not fit all. LEZs are generally urban, but you would be surprised at the amount of traffic outside schools in rural areas. Solutions are available. One is a park-and-stride area where vehicles can be dispersed. You find a safe area for people to park, you put in routes that are safe to walk along and you get a little bit of a benefit. Our programmes with schools, teachers and pupils show that that solution is pretty popular with parents where it is put in. Again, it comes down to local authority resources to find the sites for safe parking, to improve the routes and to work with organisations such as Living Streets to promote those things to parents.

The Convener: I see all sorts of problems, including a timber lorry travelling down a rural road where the safe route is down the edge of that road. I am sure that there are solutions, however.

Liam Kerr (North East Scotland) (Con): Good morning. I want to move the topic on to the “Cleaner Air for Scotland 2: Towards a Better Place for Everyone” strategy, and I will direct the question first to Stuart Hay.

The Scottish Government published the strategy, which sets out various policy commitments on air quality, in July 2021. The ESS investigation suggests that it is somewhat flawed in its timescales, that its modelling is insufficiently detailed and that it might need to be revised. Do you agree with that? More widely, can CAFS2, as drafted, deliver compliance? If not, what needs to be revised?

Stuart Hay: I will pass that to Gavin Thomson, but I will give you some quick thoughts. It comes back my earlier point that there is a set of measures that focus on cordons and vehicles, but there is not a lot more on setting out the pathway that Dr Fuller spoke about that says where the solutions are. We can see things that could be

done. I come back to the example of schools, where there is not a lot of activity. We need to have all the building blocks in CAFS2, so that the strategy goes from policy to listing specific local projects. Gavin has looked at that more than me, so I will defer to him.

Gavin Thomson: One of the things that we in Friends of the Earth Scotland often encounter is how separate CAFS2 seems to be as a programme of work in Government from transport policy in general and Transport Scotland activities. It does not seem joined up at all. Over and over, when we talk about air pollution, we are talking about transport, and the lack of connection between the two programmes is a big issue. CAFS2 was published but did not take stock of transport policy that had recently emerged or that was published shortly thereafter. It feels as though they inhabit two separate worlds.

The CAFS strategy is really good on things like updating the health evidence that the Scottish Government is working to on air pollution and including different groups of stakeholders, but taking stock of transport policy and working out where we need to get to—for example, what Dr Fuller's suggestion of a road map for meeting the WHO limits might look like and what we need to change—is absent from CAFS2. We could do more to bring those two programmes together.

10:00

Liam Kerr: Paul White, you will not be surprised that, following that answer, I will come to you with the next question.

The Confederation of Passenger Transport Scotland highlighted in its submission that CAFS2 recognises the importance of the modal shift that we have been hearing about. Are the timescales and the modelling that I put to Stuart Hay earlier sufficient to achieve what the CPT would like to see? Do you recognise, given the answer that we have just heard from Gavin Thomson, that lack of joined-up thinking? If so, what needs to happen?

Paul White: I will not go over Gavin Thomson's answer, but I recognise that there has not been enough progress on a number of the actions in the strategy since the publication of CAFS2 that I would like to see progress on. I would like Transport Scotland to be more aligned to achieving those goals. We have a bus partnership fund, which, as I stated, will deliver bus priority measures that, hopefully, will deliver passenger growth and that modal shift to bus. That is a key part of providing an attractive transport network for people to consider. We have spent, I think, £25 million of the £500 million budget. I think that the scheme was initially launched in 2019, and then

relaunched in 2021, so we have not really got far enough in delivering that scheme.

I have not seen much progress on the managed motorway project, which should be prioritising high-occupancy vehicles on the trunk road network. That falls under the remit of Transport Scotland, so you would think that that would be an exemplar project. In the public sector, there are travel plans for employees to encourage public transport solutions. Again, we are struggling to get data on what progress there has been on that.

There are a number of things in CAFS2 that could really help to shift the dial on making people consider their transport options more carefully and to improve the general public transport offering. Does that answer your question?

Liam Kerr: Thank you. I was going to move to Craig McLaren, but Stuart Hay would like to come back in.

Stuart Hay: I have a quick point to make on the joined-up nature of the route map. One element is the target to reduce car kilometres by 20 per cent. We need to be much more specific about how much of that will be delivered in urban areas. That is the place to deliver it, because that is where the pollution is. It would be easier in some ways to do it in a rural area, because there are more miles delivered, but the miles in urban areas are much more harmful. CAFS2 needs to look at the contribution that traffic reduction will make to that, as well as at vehicle switching.

Liam Kerr: Craig McLaren, you have heard the previous answers, particularly around the lack of alignment to wider transport policy. That begs the question: is CAFS2 sufficiently aligned to wider Government policy in relation to things such as the national planning framework 4? If not, given recent developments, what can be done?

Craig McLaren: One of the important things to remember about CAFS2 is that it is quite dependent on a number of other strategies to deliver it. The infrastructure investment plan, the environment strategy, the climate change plan, the land use strategy and the national planning framework have been mentioned. We need to see how that picture comes together in some ways. I am not quite sure that that is there yet.

Interestingly—if I can use lots of acronyms in one sentence—CAFS2 was published before NPF4. NPF4 has now been in place for two months. I think that those strategies join up. NPF4 talks a lot about places, and it specifically mentions CAFS2. The policy context is probably a good one. However, the big issue for me around the national planning framework is how it will be delivered. How will the policies be tested? It is too early to tell how much of that has happened yet—

not a lot of decisions have been made on the back of it.

As you know, the national planning framework policies are now part of every local development plan, so we are trying to see how that plays out. Similarly, we want to see how it works in terms of the capital investment that should go behind some of the projects around, for example, air quality.

For a number of years, we at the RTPi have been saying that there is a need for a better link-up between the vision of a national planning framework for your country and the capital resources to deliver that. That is still not quite there yet. It will be interesting to see how the next iteration of the infrastructure investment plan plays out and how that works with the national planning framework.

Liam Kerr: I am grateful to you all for those responses.

The Convener: Gary Fuller, were you trying to catch my eye to add something, or did I misinterpret that?

Dr Fuller: Yes, I was, and thank you for the opportunity to come in. I tend to fidget quite a bit.

I was in Scotland for some of the early developments in your clean air strategies, and I was really excited by the level of integration between the different parts of the Scottish Government that was utterly apparent, with so many people working in the same direction. It is interesting to see where you have got to since I last visited, which was some years ago.

In a framework and strategy, we also need to consider the challenges of meeting our climate commitments. Many actions have been taken on climate that have been quite adverse for air pollution. We can think of the dieselisation of our vehicle fleets that we have experienced this century. We can also think of the increased burning of wood in people's homes as well as urban combined heat and power. Those are two things that are part of a climate perspective but have been adverse for air pollution.

I encourage you to think about things on a three-way axis and to find the sweet spot where we have policies that are good for air pollution, good for the climate and good for health. We can think about things like active travel; the opportunities to combat urban and rural noise from roads and air pollution from traffic; our climate challenges; and the issues to do with the lack of everyday exercise in people's lives and the health impact that that creates. I think that doing that would be good, and I encourage you to put those considerations into your future plans.

Jackie Dunbar (Aberdeen Donside) (SNP): Good morning.

I would like to discuss LEZs. How effective do you think the current and forthcoming LEZs in our cities are and will be? I will come to Craig McLaren first and then to either Stuart Hay or Gavin Thomson, whoever is best placed to answer the first set of questions. What is your opinion on the location of the LEZs and how they are set out? Are they effective or effective enough? What needs to be done to monitor how they are being effective? Do we need to do more? Do we need to do less? What are your views on the length of the grace periods?

Craig McLaren: On the location of LEZs, focusing on the two biggest cities first makes a lot of sense. They are the places where we need to take most action to have most impact, so I absolutely see the sense in that.

I have a slight concern about the LEZs. I live in Glasgow, and I travel in from the south side to the city centre quite a lot. From talking to friends, colleagues and others, I know that there is a bit of confusion about what it will all mean when it kicks off in June, and a bit of work has to be done in that regard. Perhaps I am being a bit unfair in that work has been done on trying to engage people to understand what it means for them and what they need to do, but that must continue and perhaps be amplified a bit because there is still a bit of confusion. There are big signs as you enter different parts of the city centre, but the educational side and public awareness of it needs to be enhanced.

I have forgotten the other parts of your question. Sorry.

Jackie Dunbar: Before I go on to that, do you mean that it needs to be made simpler for folk? A sign saying that you need to have X amount of something means nothing to me, to be fair.

Craig McLaren: Yes. It is about understanding what it actually means for people: which type of vehicles can be used in the area and which cannot. I imagine that that could also be part of a broader campaign to encourage people not to use their cars in city centres at all. There are bits about trying to stop people from doing that, but it also about putting in place things that make it more attractive not to use your car. I use Glasgow as an example. It probably has a good, well-used public transport system. It is about trying to see how that can be used to best effect.

Jackie Dunbar: I asked for your thoughts on the length of the grace periods that will be put in place and on the monitoring of that.

Craig McLaren: I have no real comment to make on the grace periods. On monitoring, I do not know the science behind it, but we need to get better at how we collate data and share it much more effectively. On the planning side, in which I

have most involvement, a lot of work is going on just now on digital planning initiatives. A key aspect of that is spatial data. A £35 million programme on digital planning is going ahead just now. The bit that can give most added value is how we gather, share and access spatial data and how we make it consistent across the field. We need to make sure that we can link that digital planning, for which there is a bit of money, with all the other stuff that is going on in relation to monitoring, so that we have one place where we can look at all that and how it works spatially. That will give us a more grounded evidence base for taking decisions.

Jackie Dunbar: Does Stuart Hay or Gavin Thomson have anything to add? They might have a different view.

Stuart Hay: I think that it comes down to what we will do during the grace periods to win over communities and communicate with people. What will change during that period? We do not really know. Do we have enough time to sell what should be a positive vision about getting cleaner air and things changing? I do not think that we are selling a positive vision. We are saying that we are introducing a whole load of restrictions because we have to do so on health grounds. That is one dimension, but we should say that the measures are part of the journey that we are on as a community to change how we live our lives. That is quite a difficult, but powerful, message. That will take time.

The Convener: Before we go to Gavin Thomson, I see that Gary Fuller has his hand up. I am worried that it might drop off, so I just want him to know that we have noted it.

Jackie Dunbar: I have actually got a question for him, so I was going to—

The Convener: These are your questions. I just did not want his arm to fall off.

Jackie Dunbar: Sorry—I mean that he can come in before I ask him another question.

My next question, which is about the alignment with wider transport policies, the investment in public transport and active travel, is to Paul White. How effective is that with regard to LEZs?

Paul White: You are right to point to that. Our view is that there was a slight misalignment with LEZs, which introduce a standard based on a Euro 6 diesel engine. Operators have strived to comply with that, and we are in a good position to meet those targets across the four LEZs. That was with the help of the Scottish Government, to a degree, through the bus emissions abatement retrofit fund. The Government part covered the costs of fitting emissions abatement equipment to some buses, and some buses have been replaced.

Following that, we were, quite quickly, hit with the programme for government target to decarbonise half the bus fleet by the end of this year. It is good to have an ambitious target, but I do not think that we will hit it. The sector might have invested, to a degree, in new diesel vehicles to meet LEZ standards, but it was then faced with meeting targets for zero-emission vehicles, with the average lifespan of a bus being 13 years. If you are curtailing that and asking operators to invest twice, there is a degree of misalignment, which we have had to deal with.

Jackie Dunbar: I will bring in Gary Fuller now.

Dr Fuller: Thank you. While we are talking about low-emission zones, I just want to say a couple of things about the ultra-low-emission zone in London. It has been astonishingly successful in the central area. I have reviewed a lot of the work that has been done by Transport for London in assessing that. The zone has reduced nitrogen dioxide next to roads in central London by about 44 per cent compared with another scenario. When assessing these things, it is important to think of a scenario in which the LEZ had not been in place, so that we can look at the additional changes that have been made.

10:15

There were roads in central London that had nitrogen dioxide concentrations of more than 100 micrograms per cubic metre—about three times the legal limit—so the 44 per cent reduction in NO₂ in central London has had a huge impact. The ultra-low-emission zone started in the congestion charging area of Westminster and the City of London, but it was extended to the North and South Circular roads—you might think of that area as inner London—and the impact there was about a 20 per cent reduction. That is good progress. We now find that some of the areas where we have the most difficult problems with nitrogen dioxide are out in the suburbs, hence the mayor's argument to take the zone out a bit further.

Although that has been really successful, I caution that low-emission zones are different in different places. A colleague on the panel talked about individual bus fleets and the fleets in different areas. We have to be careful to design a low-emission zone to match the fleets that are on the roads at the time.

On winning hearts and minds, the London zone was very well supported in the city centre and fairly well supported when it moved out into inner London. However, in the past month or so, the London mayor has faced a lot of pushback from some vocal quarters, let us say, about the introduction of ULEZs in suburban areas. The measures have been astonishingly successful in

the centre and surprisingly successful in inner London.

You had another question for me.

Jackie Dunbar: Yes. It follows on from what you have just said, so thank you very much for that. What lessons could be learned from the research that has already been done and from what central London and other UK cities have done?

Dr Fuller: You talked about a grace period, by which, I think, you mean the time between announcing the scheme and its coming into force. That period is really important, because it is when a lot of the work is done. When considering the changes made by a low-emission zone, many people look at what happens on day 1, but we have seen from the ultra-low-emission zone in central London that the changes began about two years before day 1, as the fleets for the city centre were upgraded. The work that is done in the grace or build-up period is really important.

I encourage you to think about how you will measure the impacts. Some of that should be done through measuring air pollution, but some of it should involve thinking about the vehicle fleets that are on the roads, because, on some roads, it might be hard to see the concentration difference, whereas, on many roads, it will be easy to see it. In your analysis, you should think of a way to compare a low-emission zone with the area around it that is not covered by a low-emission zone, or to compare one city with a zone with another. It is good to think about the counterfactual and the additional improvement that is being achieved. Winning hearts and minds is really important, and we are all learning together.

Jackie Dunbar: Thank you very much.

The Convener: I have a couple of questions on LEZs. In the previous session, I sat through the Rural Economy and Connectivity Committee's examination of the Transport (Scotland) Bill and LEZs. We were told that winning people over was really important, as Gary Fuller has just indicated. We were also told that the money that is collected from LEZs should be invested in the infrastructure needed to make the LEZs work more effectively. It is difficult to compare London with Aberdeen. London has an integrated transport policy, with buses and tubes that interconnect. Glasgow might be able to claim to have some of that, but I am not sure that Aberdeen can claim to have that.

Should the money that is raised from LEZs be ring fenced and put straight back into improving transport infrastructure so that we do not disadvantage people who can no longer take their cars into cities?

Dr Fuller: Local government finance is a bit outside what I do, but it is my understanding that all the revenue that is raised from the zones is invested back into transport. I do not know whether the money should be focused on disadvantaged communities or on improving city centres to help businesses and so on. That is much more of a political decision, and I do not have the evidence to give a steer in that regard.

I can speak about the London experience. I do not live in London, but my dad, who now cannot drive, is hugely advantaged. His life and independence are made possible only by his very good local bus services, which were originally funded by congestion charging when that was introduced in central London. Otherwise, he would be housebound.

The Convener: That is interesting. There is the argument about who should benefit from the money from LEZs. For example, should it be people in rural communities because they are not able to get into the zones? Does Gavin Thomson want to answer that and the wider question?

Gavin Thomson: I remember fondly the evidence sessions on the Transport (Scotland) Bill.

Let me pull back. As I understand it, the low-emission zones in the four cities in Scotland are designed differently from London's LEZ and the later ULEZ. The ULEZ uses a congestion charge model—you pay to enter. For the low-emission zones in Scotland, there will be penalties like parking or speeding fines. If your vehicle is not compliant, you should not enter the zone. In other words, the schemes are designed to be revenue neutral. The schemes do not want to raise money; they just want compliance. That goes back to our discussion about legal compliance being the objective—even if it is not the primary objective, it is one of the top ones.

The London scheme is designed to raise revenue that can be spent on improving transport options that can benefit people experiencing social isolation, people in rural areas and other groups, but the Scottish schemes are not designed to raise money. The enabling legislation sets out that any penalties paid are to service the zone and that additional moneys are to be paid into, I think, the sustainable transport plan at the local authority level. However, it is unclear how much money that will raise. Perhaps you can talk to the local authority officers about that later. It might raise relatively little, in so far as it would not pay for an infrastructure project, for example, or for an expansion of the fleet, or maybe it would—we might hear other voices on that.

I want to be clear that the scheme is fundamentally designed differently. We need to do

a bit of work to improve the public's understanding of the zones, because people's sole reference point might be from when they went to London and interacted with the congestion charge. We need to make some big strides to raise public awareness that the scheme will work quite differently in Scottish cities.

The Convener: I think that the nuance between a penalty and a charge will be lost on most people—it is certainly lost on me. If I pay to go into an LEZ, it is a charge. It is not a penalty; I am paying a charge. That was always my view during consideration of the Transport (Scotland) Bill. People will have to pay to go into the zone if they have no other way of getting in. Therefore, it is a charge rather than a penalty.

Fiona Hyslop: I have a quick supplementary question for Paul White. Dr Fuller said that LEZs should be designed with reference to buses that will use the area. Do you believe that Scotland's LEZs have been designed adequately to accommodate the buses that will use them?

Paul White: Buses were first targeted in the Glasgow scheme. If we look at that, we see that the target of compliance has moved up in bands of 20 per cent over a number of years to reach 100 per cent. That is helpful for the operator because, in a situation in which you are told that you have a target to reach and a grace period of two or three years, you have to think about how you are going to meet that new target if you have a whole fleet, or part of a fleet, to change. The levers that you can pull are to remove the non-compliant vehicles and reduce services, which may be important for people as they enter the LEZ, or to increase fares to generate revenue to invest in the fleet renewal that has to take place.

A scaled approach over a number of years has been helpful in allowing operators to meet the target in Glasgow. We have had a good number of years' notice of the other schemes and a good idea, if not full clarity, of what they will look like. Operators have managed to adjust and they are in a good position for the four LEZs.

We are saying to the public that there will be areas that they may not be able to access by car and we want to make the public transport options as attractive as possible. Rather than ring fencing investment that is generated from the scheme to improve public transport or having a road-based allocation, I would prefer to have seen a degree of that come in at the same time as the imposing of limits on buses so that, by the start of the scheme, we have a public transport network that is more reliable, punctual and affordable, instead of hoping to get there through revenue that is generated from the scheme at a later stage.

Mark Ruskell: The system that we have in Scotland is one of local air quality management in local authorities. We have had quite a lot of written evidence on that. The ESS report talks about the timescales for how plans are developed, reviewed and published. Gary Fuller made comments about monitoring vulnerable people, particularly outside schools, and we have had comments from Professor Campbell Gemmell about who provides the independent oversight of air quality management areas and the plans that come from them. How can the system be improved overall? I ask Gavin Thomson to answer that first, and then anybody else who wants to comment.

Gavin Thomson: I will bridge from what we have just talked about. The enabling legislation makes it pretty clear what the processes around low-emission zones are, whose role it is to oversee the plans and what will happen if a low-emission zone is not performing or is poorly planned. There is a set role for the cabinet secretary and other Scottish Government ministers and a clear relationship between councils and the Government. However, if we move away from that to a situation where, say, a city in Scotland does not have a low-emission zone planned or it has general air pollution issues that are not addressed by low-emission zones, it is much less clear what the roles and responsibilities and the avenues of accountability will be.

That is one of my frustrations with local air quality management areas and the associated plans. It is not clear what will happen if a plan is rubbish. Whose role is it to say that a plan is not sufficient to protect the health of people who live and work in the area? Real gaps have been identified by the Environmental Standards Scotland report. Crucially, there is a recommendation for a new body, but someone—a stakeholder—needs to have responsibility for overseeing local air quality management plans and tracking accountability if they are not sufficient. That definitely needs to be cleaned up.

Mark Ruskell: You made a specific point about monitoring vulnerable populations and monitoring outside schools. Should that be part of all plans, or should a place-based approach be taken?

Gavin Thomson: As Dr Fuller said, there are key demographics that are at increased risk, such as those at nurseries and schools. When children are going to school, they are at increased risk of some of the health impacts of pollution. It therefore makes sense to me that monitoring at nurseries and schools should be a particular priority. In some cases, it is. Some local authorities have placed diffusion tubes, which are low-cost monitoring devices, around schools, but that is probably up to the officers in the councils who

place the monitoring devices. That is not set out, as far as I am aware.

You are right to say that key demographics and areas should have particular priority and prominence in relation to monitoring. That is probably a step that we should take.

10:30

Dr Fuller: I think that there should be monitoring outside schools and in other areas—

Mark Ruskell: I am also asking about the wider issue of air quality management area reform.

Dr Fuller: I will not respond in detail on the situation in Scotland as it is some time since I have visited and seen it in action, but local authorities have a tremendous role to play in shaping air quality policies to meet the needs of their communities, towns, cities and rural areas, and we should be doing all that we can to encourage and empower them to do so. I do not think that I should say much more on the situation in Scotland.

Mark Ruskell: Do you want to add anything on monitoring?

Dr Fuller: Monitoring is really important, but we need to think about it in a much broader sense. Rather than just looking for changes in air pollution, we also need to be monitoring traffic flows. For instance, we can create zones around schools that are traffic free, but it can be quite hard to detect changes in air pollution, especially in rural areas. In such cases, we need to think about monitoring in other areas during the time before school starts, including changes in traffic flow and parking and differentials in the behaviour of the children.

Craig McLaren: I have nothing to add other than to say that, from a planning perspective, some of the stuff on monitoring, in particular, and the sharing of data and the impact of the interventions that have been put in place needs to be more joined up. In planning, we have been looking at trying to change the way in which success is measured and move away from metrics, which are all about the speed at which planning applications are processed and the number of houses that are built, towards outcomes.

I wonder about having an outcomes-based approach. If you have an outcomes-based performance management system, it can, in and of itself, change behaviours and make sure that you work more effectively in trying to achieve outcomes and impacts.

Stuart Hay: There is an issue around the local delivery of air quality management. The

Parliament building is a good example of that, because it has a relatively well-developed transport plan and a good profile with regard to how people get here. However, if we look to the offices across the road, is there a plan there? We do not know who is responsible for making sure that they have a plan to change behaviour. That is key because, without such a plan, people will drive there. If you look down Holyrood Road, you will see offices with a large amount of parking space.

We need to build our policies around good, hyper-local interventions, but I am not sure who is responsible for delivering them. It is the same with school travel planning. Who is responsible for coming up with the plans and making them happen? Headteachers will not be the ones who do that—they have a lot on their plates—so who is going to help the schools to work with parents? We work with schools, but we can only ask them to do so much. They need a bit of backing from other parts of councils.

Mark Ruskell: Paul, do you have anything to add from the public transport perspective?

Paul White: Most things have been covered. I agree with what the other witnesses have said about local interventions. I am certainly not an expert in that area, but I know from reading the reports that oversight and accountability are really important.

Mark Ruskell: I have a supplementary question for Gary Fuller about a technical issue with monitoring. When I looked at the air pollution data for Perth for the past week, I noticed that, if we average out the air pollution data over a week, it comes in under the limit value, but if we look at particular times of the day, we can see that it spikes quite strongly. Are there issues with the way in which we collate and interpret air quality data in this country?

Dr Fuller: There are lots of issues with the ways in which we measure air pollution. Where we decide to put a measurement site creates a lens through which we view the problem. Going back to your question about air quality management, I note that we need to stop focusing so much on limit values. When someone comes along with a planning application in England, it will be treated differently in relation to its air pollution impact if the site is in an air quality management area, but we need to respect the fact that harm from air pollution also occurs outside air quality management areas. It occurs in rural areas as well.

In respect of monitoring, there is a tendency in the way that air quality management works in England for us to chase hot spots and only measure there. We are not making measurements in areas where the majority of people may actually

be living. We just measure close to roads and city centres, which may mean that we are missing some problems. For example, we think that, with the cost of living crisis, there is a great increase in the number of people who are using solid fuel to heat their homes, but it will be very hard to detect those with our current measurement strategies, which are so focused on transport. We are doing some work in London to investigate whether new suburban hot spots are being created because of the ways that people now choose to heat their homes. Our measurement schemes therefore need to be agile.

There is also a really good opportunity to involve communities in measurement. One of our projects is Breathe London, which is funded by the mayor, the college and Bloomberg Philanthropies. We give out measurement nodes, which are small measurement devices, to local communities. One of the really exciting things, and something that we are overwhelmed by, is how much communities want a voice. They are not interested in wondering whether the amount is precisely 39 or 40 micrograms per cubic metre, which I have spent my life doing, but they are interested in the things that you described: variations in air pollution during the day, whether there are times when there is a problem, and tackling the ups and downs of air pollution. They want a voice in that.

There may be an opportunity to embrace more citizen science perspectives—not to expect people to produce really accurate data, but to help them to produce data that describes their local problems, to enable them to get solutions that fit that and to empower communities to be able to take their concerns to their local council, SEPA or Transport Scotland.

The Convener: The final questions for this panel come from Monica Lennon, who has waited very patiently.

Monica Lennon (Central Scotland) (Lab): I thank the panel for their evidence, which has been very interesting. The written submission that we received from the Environmental Rights Centre for Scotland highlights the concept of clean air being a component of the human right to healthy environments and it signals opportunities in Scotland's forthcoming human rights bill. I am keen to hear any views on that. I see Gavin Thomson nodding, so I will come to him first.

Gavin Thomson: I think that Dr Fuller has a point to make as well. That is a really important component of the right to a healthy environment. I will make a couple of points. First, there are real inequalities in where air pollution comes from and who is most affected by it. We have already talked about the age spectrum. Children are at increased risk from air pollution but, obviously, adults make the decisions about transport and all the other

sources of pollution. We also know that, when it comes to transport, richer people drive more and further, and poorer people live in areas with higher levels of air pollution, so there are real issues of inequality.

A human rights framework is a way of making sure that everyone is protected. That is key to thinking about air pollution in terms of people's rights being infringed and who the decision makers are at both the individual and systemic levels.

There is another aspect in respect of the governance and transparency of organisations, which the Environmental Standards Scotland report looks at. If we position clean air within a rights-based framework and consider a right to a clean air environment, that might lead us to think more about reporting, monitoring and transparency in organisations such as local authorities.

Monica Lennon: I am keen to go back to the point about equalities, but I will bring in Dr Fuller first.

Dr Fuller: It is a really important question and topic. It concerns how we should move beyond the paradigms that we created in the 20th century and what we should create in the 21st century.

I entirely agree with Gavin Thomson's point about inequalities. Last night, I was at an event in London that focused on air pollution affecting black communities for the most part. The inequalities in exposure between the richest and poorest in the UK are stark, but if we look at black, Asian and minority ethnic communities, they are far stronger. We do not talk about that often enough when we talk about air pollution. We are almost completely blind to it.

We talk about inequalities in exposure, and we are just starting to talk about that in relation to people who are at vulnerable times in their lives—those who are pregnant, for example, and children. That is really important, and I support the idea of having a rights framework. However, we also have to ask what difference it would make. There are so many times when we try to change our lens to look at ways to reduce wealth inequalities and we see that they also come with health inequalities. Viewing air pollution through that lens can help us as well. A rights agenda will help us at times when there are ambiguities in the situation or we come across a new case.

If I may, I will talk just for a moment about a case in north London where a large distribution depot is planned to be right next to a school fence, within 2 metres of the nearest playground. The current planning laws would allow that to go through. A rights agenda would allow us to look at that and weigh the children's right to a healthy

environment against the landowner's right to develop the land. I fully support such an agenda.

Monica Lennon: Thank you. The disadvantage of being the last member to ask questions is that, as I am being told, I only have about two minutes left. Stuart Hay was nodding, but I want to ask a supplementary question, so perhaps he will also comment briefly on that.

Gavin Thomson raised the issue of inequality and Dr Fuller added his comments on that. I am aware of some research by the Woodland Trust that looks at tree equity. I do not need to rehearse to you all the benefits of trees and vegetation, but the Woodland Trust found that the most deprived areas coincide with areas where there is the least tree cover and vegetation. I am keen to hear, in a couple of words, what should be done to tackle the link between deprived areas, lack of access to nature and air pollution. I will bring in Stuart Hay first, and then Craig McLaren.

Stuart Hay: I make the broader point that we need to give people the capacity to use the rights that we give them. We have disability legislation and people have rights, but they cannot enforce them. We need to bring in all of that, but we also need to give people training and routes to enforce those rights. If someone feels that their council should be planting trees, what leverage do they have to make their council do that? They may have a right, but how do they make their council do it?

Craig McLaren: I could talk about this for a long time, but I know that I cannot.

Monica Lennon: We are not allowed.

Craig McLaren: I go back to the idea of what planning is about. It is about giving people the opportunity to have a vision for what their place could look like, and doing that early. It is about discussing the opportunities and constraints and, from there, building a route map to make that work. That is the important bit for me, because the route map is where we can start having a good discussion about the resources that are required and people's responsibilities to take that route map forward and deliver on it.

Monica Lennon: I had a couple of questions for Paul White, but I know that there is no time left. With your permission, convener, perhaps we could write to Paul with those questions.

The Convener: I am happy to let this session run for a bit. If Gary Fuller could give a really short answer, you can then put your questions to Paul White. Gary, do not upset Monica.

Dr Fuller: I will aim for three sentences. First, there is a huge opportunity to reprioritise our urban spaces in order to create green areas. Secondly, the WHO has evidence and guidelines on the

improved health that is created by greening our urban areas. I cannot remember them off the top of my head—I will put them in the notes—but guidelines have been created for the greening of urban areas and for people having access to green areas within a certain space.

The Convener: Maybe you could roll your questions for Paul White into one, Monica.

Monica Lennon: Okay. I am interested in the £500 million bus infrastructure fund that was announced about three years ago and the work to improve bus journey time reliability, particularly around the M8 in the Glasgow area. It looks like the business plan and design development are taking a few years, although I know that there has been Covid. Do you have any insight, Paul, into how important that work is for encouraging people to leave their cars behind and get on the bus?

Paul White: Yes. I will try to be as quick as possible. Work is under way through a partnership of Glasgow City Council, operators and other stakeholders to identify where the pinch points are that those projects should tackle and how we can improve the situation. We have been putting in bids, which have to go through the Scottish transport appraisal guidance process. That seems to be quite a burdensome process. I would like it to be streamlined, if possible, because the projects are key to achieving the benefits on the ground that will encourage people to leave their cars behind. Anything that can be done to improve that process would be welcome.

Monica Lennon: That is fine. Thank you. I am not upset. *[Laughter.]*

The Convener: There is always an expectation on the convener to manage the committee to make sure that all members get to ask the questions that they want to ask, which is difficult.

Thank you very much. It has been a really interesting session. I have found it extremely interesting, and the fact that we have overrun probably proves that everybody has found that.

I will briefly suspend the meeting until 10.50 to allow a change of panels.

10:46

Meeting suspended.

10:55

On resuming—

The Convener: We move to our second evidence-taking session on the air quality improvement plan, and I am pleased to welcome to the meeting a panel of local authority representatives: Kenny Bisset, lead officer, land

and air quality team, Fife Council; Dom Callaghan, assistant group manager, sustainability, Glasgow City Council; and Shauna Clarke, environmental health officer, City of Edinburgh Council. Thank you for accepting our invitation.

I should say that the previous session ran over slightly, so if you see me wagging my pen, it is because I am trying to get you to keep your answers short and keep the questions coming in from committee members.

We will head off straight away. The first question is from Mark Ruskell.

Mark Ruskell: I was going to ask about some areas later on, convener.

The Convener: Were you, indeed? I had you down for the first question. That is fine.

Jackie, would you like to head off with the first question?

Jackie Dunbar: Thank you. First, I should tell the panellists that the convener wags his pen at us, too.

I am not sure to whom I should put my first question, so just stick your hand up if you wish to answer. If Scotland were to adopt the 2021 WHO guidelines, what would that mean for local authorities in meeting the current legal air quality limits? I am not sure who would be best to answer that.

Dom Callaghan (Glasgow City Council): I am happy to start off.

The WHO guidelines, especially as they relate to nitrogen dioxide, are extremely ambitious: the ultimate target is an annual mean of 10 micrograms per cubic metre. Just for reference, the Scottish objective is 40 micrograms per cubic metre, so that is a huge drop. There are interim targets in the WHO guidelines, but 10 micrograms per cubic metre is the ultimate aim.

Perhaps I can put that into a little bit of perspective. Only one of our automatic monitoring stations regularly meets that level—our background site. It is positioned outside the city in a rural area, so it experiences the air before it comes into the city and mixes with different sources of air pollution. In effect, in order to reach the ultimate WHO guideline value for nitrogen dioxide in the long term, we would need to make really significant progress with the decarbonisation of transport and heating, which, at this point, aligns more closely with the ultimate aims of Glasgow's climate plan than with specific air quality plans. I stress that it is a very ambitious target.

Jackie Dunbar: So a huge amount of work would need to be undertaken across all local authorities.

Kenny Bisset (Fife Council): I would just reiterate what Dom Callaghan has said. Fife Council is aligning itself with the climate action plan through our colleagues on the climate change and zero waste team. Dom also mentioned decarbonisation of the fleet. Yes, it is a challenging target, but we have faced challenges before, and we can face them again.

Jackie Dunbar: Okay. Thank you.

Liam Kerr: You were sitting at the back of the room during the earlier session, so you will have heard me talk about the cleaner air for Scotland 2 strategy. Kenny Bisset, I will come to you first. What role—and how great a role—will local authorities play in delivering the policies under that strategy?

Kenny Bisset: The role of local authorities in delivering clean air is to focus not just on transport but on domestic burning by installations, about which there are concerns. That will need to be considered. The Clean Air Act 1993 is outdated and needs to be revised to assist local authority officers in their functions.

It is also important that we work closer with our colleagues in climate change and recognise the overlaps. We are doing that in Fife and are reaping some of the benefits. For me, the key thing that has come out of working in air quality since 2004 is the setting up of a core steering group. Working with others was the key step that we took to get things done on air quality. I have found that the quarterly meetings have enabled actions to be taken that have delivered significant improvements in air quality in the Fife area, for which we have received recognition.

11:00

Liam Kerr: I am grateful, Kenny. Thank you.

Shauna Clarke, I would like to offer you the same question. What role—and how great a role—do local authorities play in delivering CAFS2?

Shauna Clarke (City of Edinburgh Council): CAFS2, as well as being a wide-ranging strategy, contains specific actions. Local authorities are responsible for a couple of them, including, predominantly, looking at bigger local infrastructure plans and policies such as the city deal et cetera to see how they incorporate air quality. We have to take a leading role in that. As Kenny Bisset has said, there is a big cross-over with the climate strategy world.

Another action in CAFS2 is to look at how we might explore zero-carbon city centres. Local authorities need to take a leading role in discussions on that with Transport Scotland and the Scottish Government.

There are definitely a couple of elements in which we need to be heavily involved, but I would point out that the strategy talks, in an overarching way, about a “Precautionary Approach” to dealing with air quality. Of course, there are a lot of standards that we have to work towards achieving, but there is also scope in the local air quality management regime to take little steps forward in a precautionary manner, if you know what I mean.

Liam Kerr: Absolutely.

My next question is for Dom Callaghan. Dom, if you have anything further to submit on this particular subject, please do so, but what we have heard from the two previous answers is that there is, arguably, a significant role for local authorities in delivering CAFS2 and implementing the policies in it. All of you heard the first panel talk about resourcing and financing. On the specific issue of idling outside schools, it was mentioned that there was a lack of resources to deliver plans and interventions. As for implementing other things, there are, according to the ESS report, huge gaps in reporting and we have heard that resourcing is what has led to that. Do local authorities have sufficient financing and resources to implement the policies in CAFS2? If not, what level of finance—and, specifically, what resources—will be required to do so?

Dom Callaghan: There is a variety of Scottish Government grants open to local authorities for air quality action plan measures and the day-to-day running of local air quality management, which is on the monitoring side of things. They are mostly funded, although the funding is tight—we might not get everything that we ask for. We might make submissions for air quality action plan grant funding for those parts that do not receive funding and which, as a local authority with limited resources, we are unable to take forward.

In the main, the Scottish Government has shown commitment in the past to funding local authorities’ actions to improve air quality. Indeed, that commitment has been further evidenced through the funding put in place for the design, establishment and implementation of low-emission zones.

Liam Kerr: Kenny Bisset, I will throw the same question at you. As you heard, the first panel seemed to be saying there were not enough finances or resources, but I think that what I have just heard from Dom Callaghan is that the Scottish Government has been supportive to the extent that it provides those resources. Do you agree?

Kenny Bisset: It has provided resources, and we have, to a certain extent, been able to use them in innovative ways to try to reduce air pollution in our area. Things will be more challenging in future with the latest target limit

values, but, at the moment, we are fairly pleased with the progress that we are making on our action plan measures to deal with air quality in the Fife area.

Liam Kerr: I am grateful for that response. Shauna Clarke, do you have anything to add?

Shauna Clarke: Yes. I concur with my counterpart. We do not always get what we want through the grant process, and there is a need across the whole country to prioritise the measures that all local authorities are applying. The pot of local air quality action plan grant funding has not increased a lot in recent years, and there is probably scope for the funding mechanisms to be better aligned with the actions that need to be taken, especially on the transport infrastructure side of things. We also need to think about how we can make a better link between air quality needs and transport budget money.

On a more local point, the human resource side of things is an issue in the City of Edinburgh Council. It is fair to say that there is a bit of a crisis in the environmental health profession at the moment. We need to get students as they are going through university to ensure that we have more qualified officers, and that will probably manifest itself more in the near future.

Liam Kerr: I am grateful to all of you.

Fiona Hyslop: My first question is for Kenny Bisset. Kenny, you said that what worked was working with others. Can you tell us what others you mean and explain how local authorities are working with the Scottish Government and its agencies to deliver CAFS2? What does working with others look like, and with whom would you like to work more?

Kenny Bisset: When I first started working on air quality in 2004 as an environmental health officer, I was going out and installing diffusion tubes. The work was quite technically orientated, with not much interaction with colleagues in other departments at the time.

We then identified issues and problems, and the approach included the establishment of air quality management areas. It was advised that an air quality core steering group be set up, and the group that we set up included colleagues from transportation, fleet services, planning, the national health service, the University of St Andrews, economic development and education.

The group meets every three months and goes through the action plan measures that we want to take to improve air quality, not just in the air quality management areas in our area but Fife-wide. We look to the future, too, and consider the options available to us in that respect. In fact, it was through talking to colleagues in transportation at

the steering group's first few meetings that we developed a road traffic management system in Bonnygate in Cupar that in a year halved pollutant concentration levels. We were especially proud of that, and it demonstrated the strength of working more closely with colleagues on such matters.

Fiona Hyslop: So that work is really being done internally in Fife Council.

Kenny Bisset: We work with SEPA, too. It is on our core steering group, and it audits us to check whether we are making adequate progress on our action plan.

Fiona Hyslop: I will move to Dom Callaghan. The previous panel talked about the fact that all types of air pollution cause an issue, not just the types of air pollution for which there are standards and regulations for compliance. Is there a danger that you spend so much time trying to meet the regulations and standards that less emphasis is put on continuous improvement? We probably need to work on continuous improvement of air quality. Do you have views on that?

Dom Callaghan: I do. Local authorities are very much guided in their actions by what is set out in the local air quality management regime. Obviously, when we look at air quality, the focus on objectives is the highest priority in our minds, but we do try to reduce air pollution, and we share the aspiration that was expressed in CAFS2 for Scotland to have the best air quality in Europe. We are certainly looking to achieve that in Glasgow.

Achieving the objectives is a primary target and should be our first aim, but we want to go beyond that. We want to have the cleanest air possible. We are cognisant not only of the WHO objective limits but of the conditions that apply to local air quality management in respect of monitoring locations. It is very much a place-based rather than an individual-based approach. There are good reasons for that. It is technically difficult to estimate somebody's average exposure, so we use the place-based approach as a proxy for people's exposure. We are always looking to push it down as low as possible.

The aim of continual improvement was there from the point at which the aim of reducing PM_{2.5} levels was brought into the Scottish objectives. You will undoubtedly have heard a lot of evidence about the harm that air pollution causes. It is clear from the available scientific evidence that particulate matter, in particular, has an impact on people's health. Glasgow is in a relatively good position on particulate matter, as is Scotland. In general, we meet the WHO guidelines.

Earlier, I mentioned the fact that we had a long journey to go on to meet the WHO guideline values for nitrogen dioxide, but we are already pretty much there on particulate matter, especially

PM₁₀, which is the larger fraction. That shows that Scotland is starting from a good place, but we have a way to go, particularly on pollutants such as nitrogen dioxide.

Fiona Hyslop: I turn to Shauna Clarke. I want to ask about Edinburgh's experience of working with different local authorities or agencies. I represent a constituency that has the biggest number of people of any constituency in the whole of Scotland, and they commute. Clearly, if you are trying to tackle transport and traffic in Edinburgh, that involves looking at the situation not just in Edinburgh but in surrounding areas.

How closely are you aligned with the regional transport partnerships when it comes to the transportation network and reducing traffic into Edinburgh? We are struggling to get basic things such as bus hubs that can take people on the M8 from Whitburn and the M9 from Winchburgh. Those are fairly obvious things. Is there enough co-ordination between the different agencies and those of you who are working on air pollution?

Shauna Clarke: I would draw on the recent work that we have done through the low-emission zone project development. The governance structure that was set out for that was clear. Local authorities were to have a delivery group that would include colleagues in SEPA and Transport Scotland, but also a lot of representation from the neighbouring local authorities. There was certainly a crossover with their air quality specialists and transport specialists, so there was a real forum to delve deeply into what is quite a specific transport intervention. That left open the possibility of people developing relationships for talking about wider regional transport policies. We had some good workshops and things like that as part of the whole process.

We are just about to publish the regional transport strategy, which takes account of the low-emission zone and other, bigger aspirations. There is good work in practice.

11:15

Fiona Hyslop: We know that, in Edinburgh, as soon as the schools go on holiday, the transport eases quite markedly. When it comes to powers that local authorities should have to tackle school issues in particular, what more do you think needs to be done? Is it just a case of people resources? How do we make sure that we do not have cars idling around our schools, and that we try to reduce the number of car journeys to schools?

Shauna Clarke: In Edinburgh, as you probably know, we have had the School Streets project, which has been very successful on a national basis. We need to look at rolling that out further. There has also been a lot of discussion about

monitoring outside schools and whatnot. Of course, we do not do that at every school, but the local air quality management regime has been very strong for the past 20 years or more on monitoring. Over the years, we have established a good understanding of what the levels are at schools. There might be seen to be a bit of a gap now that we are not monitoring there, but that information is established with us.

In recent times in Edinburgh, we have really tried to engage with the schools. We have tried to go down the education route and to encourage monitoring through classroom activities for younger students. In the high schools, we encourage it forming part of geography or science lessons through the current set-up with SEPA and the Scottish air quality database that the Scottish Government oversees. We want to help schools to get more involved and to engage more in order to take on the problem.

The Convener: Monica Lennon wants to come in on this specific point.

Monica Lennon: Shauna Clarke made a serious statement about a workforce crisis in the environmental health profession. I am keen to hear a bit more about that. Is that to do with attracting people in at undergraduate level? Is it about retaining staff? Is there something else going on?

Shauna Clarke: I am chair of the Scottish pollution control co-ordinating committee. We have had some evidence of a crisis in terms of the undergraduate programme for environmental health not being attractive and people not joining the profession in that manner. That is a very recent thing, so it is yet to materialise. More locally, there is an issue with trying to recruit environmental health officers to the local authority. There might be a wider local authority issue with recruitment, but it seems that it is a problem.

Monica Lennon: How many accredited courses are there in Scotland? I think that there are two planning schools now. What is the situation for environmental health?

Shauna Clarke: I think that there is just the one, which is provided through the University of Strathclyde.

Ash Regan (Edinburgh Eastern) (SNP): Good morning. I will start by asking about Glasgow's LEZ. Obviously, Glasgow City Council has implemented phase 1 already, so this question is primarily for Dom Callaghan in the first instance. What lessons have been learned for Glasgow? I ask the other two panellists whether there is any learning that they have been able to pick up on for their areas.

Dom Callaghan: Phase 1 of Glasgow's LEZ started at the end of 2018. As you heard in earlier evidence, it started off fairly modestly. It targeted only the bus fleet: the scheduled service buses. As I said, it started off modestly. It was expressed in terms of bus movements through the LEZ and what proportion should be by Euro 6, or better, buses. That increased year on year by 20 per cent until we achieved full compliance from the bus fleet at the end of last year.

We can see clearly that that has been very successful. We started with buses back in 2018 because the source apportionment showed that, on the streets where we had the highest levels of air pollution, it was unequivocally the case that buses were the major contributor. In fact, Hope Street monitoring station, which frequently tops the "bad list" of highest air pollution levels across Scotland, sits on a major bus route. We saw a dramatic fall in the nitrogen dioxide levels that were monitored there at the start of 2020. That was when the first significant change that the LEZ required of the bus fleet—the move up to 40 per cent—kicked in. For the first few months of 2020, we saw quite good results from the monitoring. Unfortunately, in March 2020, lockdown happened, and any air quality benefits from the LEZ were masked by the massive drop in transport.

We saw a return to exceedances of the nitrogen dioxide objective level in Hope Street in 2021 when restrictions were lessened, but it was marginal. Preliminary results from last year show that we have again dropped below that as the buses hit the 80 per cent to 100 per cent level through the course of last year. Before the LEZ kicked in, levels at that monitoring station were more than 50 per cent above the objective level, and it now looks as though we are on the borderline of compliance. That shows what a big improvement has been achieved simply by tackling the buses in that location.

Preliminary results from last year from the non-automatic monitoring sites, such as the diffusion tubes, continue to show exceedances across Glasgow city centre. That reinforces the position that a bus-only LEZ is not enough to give us the desired outcomes for the air quality objectives. That is why we are looking forward to the implementation of the Glasgow low-emission zone on 1 June and the air quality benefits that we fully expect to arise from that.

Ash Regan: Shauna Clarke, would you like to add anything?

Shauna Clarke: I have nothing specific to add. As part of the process of developing LEZs in Scotland, the four local authorities have worked closely with Transport Scotland, the Scottish Government and SEPA. We are constantly

learning from one another, and I hope that that will continue so that, when Glasgow goes first with the big one this June, the other local authorities will pick up some benefits from that for next June.

Ash Regan: So there is nothing specific that you have seen with regard to the implementation in Glasgow that you would do differently.

Shauna Clarke: No, because we have been on this journey together, and we worked towards a timeline whereby we all implemented the LEZ around the same time last May. It has been a good case of working together.

Ash Regan: Kenny Bisset, do you have anything to add?

Kenny Bisset: We have not identified the need for a low-emission zone following the relevant technical guidance screening criteria. However, we are very grateful to Glasgow and Edinburgh councils for sharing knowledge of the work that they are doing through the relevant liaison groups. We have learned new ideas. Those councils are using some monitoring equipment that is of particular interest to us for the future in tackling some of the areas that we are dealing with in Fife.

Ash Regan: Will you outline for the committee how your local authority is preparing and the specific steps that you are taking for that? It might be useful if you were to outline some of the support that is available for businesses or households to help them to comply.

Dom Callaghan: Preparing for the Glasgow low-emission zone has been a long process. As Shauna Clarke said, the zones in all four cities came into effect last May, but the process of preparing stakeholders—the public—for the implementation of low-emission zones started even before phase 1 started in 2018.

Currently, we are really focused on the communication side to get the message out. From a practical point of view, the signage, which went up in December 2022 and into January 2023, made people realise that the zone is actually physically coming. That brought a lot of focus to it. We have quite an extensive communications plan that involves all kinds of advertising, including television advertising, to get the message across, to try to prepare people for the low-emission zone, and to get the knowledge out there.

I think that it was mentioned earlier that it is sometimes a hard message to sell. People might not be aware of the Euro category of their specific vehicle. Now that the vehicle checker that Transport Scotland has supplied is up and running, people have that easy way in which to check whether their vehicle can be driven in a low-emission zone.

We are very grateful for the help that we have received from Transport Scotland and the Scottish Environment Protection Agency in preparation for the low-emission zone. SEPA provided the technical expertise with evaluation and modelling, and it helped us to design exactly how our low-emission zone would have to look in order to provide the outcomes that we are looking to achieve. That has been invaluable. Despite the fact that it had its own issues with the cyberattack that seriously affected its systems, it pulled through and managed to give us the information base that we needed to present to the public and say, “This is the situation. Here is what we propose to do, and here are the benefits that we expect to see from it.” That is a very important message to get across.

Ash Regan: I will pick up a little bit on what you said about signage and awareness raising, as that came up with the earlier panel, as you know. Obviously, you have undertaken a lot of work to raise awareness. Do you think that the message is starting to get through, as far as you can tell?

Dom Callaghan: Definitely. The amount of public interaction that we have had has increased dramatically over the past year since the low-emission zone came into effect formally. We saw increases in the correspondence that we receive about the low-emission zone coincide with all the external billboard, radio and television advertising that we undertook last year. I would say that the signage was the single biggest factor in raising public awareness.

Way back in 2018, we established what we called “indicative signage” around some of the main traffic entry points to the low-emission zone. That served to prepare people who used those routes regularly, and let them know that the low-emission zone was coming. However, the statutory signage—the road signage that effectively legally declares that someone is entering a low-emission zone—seems to have had the biggest impact. When we have undertaken co-ordinated communications and advertising campaigns, we have always seen a spike in inquiries and responses, which have been focused around those.

Shauna Clarke: We have undertaken a bit of work in the build-up to implementation and enforcement next year that has looked at awareness and understanding among the public. We did a study with 600 drivers in Edinburgh, and we found that at least three quarters of them considered that it was important to protect public health and reduce air pollution. That study also found that drivers supported the LEZ. Probably due to the national campaigns and material that we have seen and heard on TV and radio, the message is definitely getting out there. We intend

to continue to do those sorts of studies to keep an eye on that.

We have also been monitoring the traffic itself and its composition with colleagues in SEPA, who, as Dom Callaghan said, have been really helpful in presenting tools and information to try to make the information a bit more accessible to the public. We recently published a press release that talked about how traffic composition has changed in the past six years since we started the work and the fact that the total fleet of vehicles is now over three quarters compliant, whereas it used to be less than 50 per cent compliant.

11:30

Traffic analysis has also allowed us to identify where we need to do targeted interventions and awareness raising. Back in 2019, our light goods vehicle fleet was around 6 per cent compliant, but that has jumped hugely to almost 70 per cent. We are now focusing on some of the targeted messaging in that sector.

Work is on-going, and we are trying to tie in with the national comms and campaigning.

Kenny Bisset: Fife has two air quality management areas, and we have amended them to remove the pollutant nitrogen dioxide. We await the outcomes of an intercomparison study of particulate monitors in Scotland, which will apply a correction factor. We will then make an informed decision on whether to revoke those areas.

In dealing with members of the public, their heightened interest in the fact that we might be taking away the air quality management area and leaving it has interested us. We have had to be at pains to point out clearly that we will continue to monitor and to institute our air quality strategy aims and objectives in ensuring further air quality benefits in those zones.

The Convener: Before we leave talking about Glasgow, could Dom Callaghan clarify something for me? There is talk that the council would like to include the M8 in the LEZ. Is that true?

Dom Callaghan: Undertaking some remedial actions on the M8, including, potentially, its inclusion in a low-emission zone, has been expressed at a political level as an aspiration. At present, the M8 is not within local authority control, and the Transport (Scotland) Act 2019 is quite clear that it cannot be included in the low-emission zone.

We have made sure that, apart from at one junction where it was unavoidable, anyone who is exiting the M8 has options before entering the low-emission zone. The signage is very clear on the one junction where that is not possible. We have tried to make sure in low-emission zone

development that the M8 is not impacted by the introduction of the low-emission zone and that drivers have options and do not find themselves with no choice but to enter.

The Convener: I wanted to clarify that because, from my understanding of the 2019 act, special roads, such as some trunk roads and the M8, cannot be included in LEZs. I wanted to ascertain what the process would be if the council's aspiration were to include the M8 in the LEZ. Who would have to give authority for that?

Dom Callaghan: That is outside my area of knowledge, but I understand that, as it is a Transport Scotland-controlled road, any decision on that must come through Transport Scotland and the Scottish Government.

The Convener: Okay. I remembered conversations during the passage of the Transport (Scotland) Bill about having to consider roads that linked across the United Kingdom so that there was a standard policy on all of them.

Dom Callaghan: Yes. As I said, only roads that are under local authority control can officially be within the low-emission zone. However, I stress that the M8 has been considered in the modelling and consideration of the design of the low-emission zone. In the same way as the evidence base on the city centre streets was built up, the M8 was incorporated into the traffic and air quality models to take into account any transport-based pollution coming from it.

The Convener: Thank you.

Jackie Dunbar: You have told us that you are monitoring the effectiveness of the LEZs. What is being done to monitor that? What impact do the LEZs have on low-income communities that are reliant on private car travel?

Sauna Clarke: On the pollution side of the LEZ monitoring, we want to make sure that it integrates well with the established local air quality management regime. The current system monitors using passive diffusion tubes or the more established units. We want to build on that and make sure that we look at the LEZ impacts on pollution.

On top of that, we recognise the need to monitor the traffic a bit better. Earlier, I mentioned looking at the actual composition of the traffic, such as the vehicle types and the Euro standards. There is a need to do quite detailed traffic monitoring, which normally involves putting up a camera, establishing it for a period, and taking good data from it. That is our intention but, sometimes, especially when looking at what is happening across the board in the city, monitoring can be resource intensive, so we will seek support in the

form of grant funding to undertake that traffic monitoring.

Earlier, there was a discussion about all of that data. It is very well established that air quality monitoring data is openly available from the Scottish Air Quality website. We will want to make sure that data from the traffic monitoring that will need to be done for the project in future—some traffic monitoring has been done—will also be openly available. I know that SEPA and colleagues in Transport Scotland are working on that and hope to have better links to the spatial hub to make that data available. There are positives there.

On the impact on low-income households, we did not mention earlier that supports are available for people impacted by the low-emission zone. There are a couple of support grant regimes to support those most affected. The grants are administered by Transport Scotland and the Energy Saving Trust. Dom Callaghan might be able to remember the amount of money involved in that; I cannot.

Dom Callaghan: I can say that £5 million has been spent in the Glasgow region through the LEZ support fund. I cannot recall off the top of my head the total across Scotland, but around £5 million has been given in grant funding in Glasgow. The funding is targeted at those who are least able to adapt to the introduction of low-emission zones, such as low-income households, small businesses, microbusinesses and certain transport stakeholders.

On the point about the impacts on low-income households and communities, in earlier evidence, we heard that those communities contribute least to air pollution because people in them drive less and cause less transport-related pollution. However, in general across Scotland, they are most exposed to air pollution. The LEZs should bring co-benefits by reducing the air pollution that people are exposed to, and the support fund is targeted specifically at low-income households and microbusinesses to help them to adapt.

Jackie Dunbar: Thank you.

I will stay with you for a minute, Dom, if you do not mind. What are local authorities doing to improve air quality outwith city centres and the LEZs? What impact is that having overall?

Dom Callaghan: The previous air quality action plans that Glasgow put in place in response to air quality management areas have taken a city-wide approach for the most part. A lot of their actions were not geographically specific to an area, so they have had benefits not only in the air quality management areas but in the city as a whole. I expect that the low-emission zone will contribute to that by reducing the number of journeys by the

most polluting vehicles across the city, not just within the low-emission zone.

On the evidence that we can point to outwith the city centre, we have had three air quality management areas in respect of nitrogen dioxide in Glasgow. The city centre is one of those; the other two have been at hotspot locations in the city. One of those was revoked in 2020 after a long period of compliance with the objective level, and the remaining one will be revoked this year because, again, there has been a long period of compliance with the objective at that location.

Progress is being made. The remaining hotspot, which is the remaining area where we have fairly widespread exceedances of the air quality objectives, is the city centre and, naturally, that is becoming the focus of our low-emission zone work.

Jackie Dunbar: I have a final question, which I will put to Kenny Bisset. We discussed monitoring stations and tubes—excuse me, but I cannot remember the proper name for tubes. Who is responsible for choosing the locations of the monitoring stations? How do they decide which is the best location?

Kenny Bisset: The local authority undertakes that process, and it will submit its report to the Scottish Government and SEPA, which reviews our reports. If there are any disagreements, we will discuss them. To date, I am not aware of any in Fife.

Jackie Dunbar: So there is really a joint decision.

Kenny Bisset: Yes, there is a joint decision.

The Convener: Just before we leave this subject, I have one more question. You will have heard the question that was put to the previous panel. How will the council use the money that is raised from the penalty—or the charge, whichever way you view it, if those are different things? How will it take into account those who commute into cities, who will probably be the people most affected? Could I have brief answers?

Dom Callaghan: I have to qualify my answer. We are unsure what exactly the penalty income will be. It is an exclusionary policy and is not like the clean air zones that operate in England. It is an escalating penalty to discourage repeat entry by non-compliant vehicles. Should there be any income from penalty charges, the Transport (Scotland) Act 2019 sets out what we can use it for. First, it may cover the costs of operating the scheme. Secondly, it may be used to help achieve the aims of meeting air quality objectives. That is a fairly wide remit that can be interpreted in a number of ways, including, potentially, the use of that funding to enhance and benefit public

transport outwith the city centre. One of its mandatory uses is to help achieve climate change objectives. That, again, is a very wide remit, and the funding, should there be any, could be used for projects with a clear climate change benefit.

Shauna Clarke: We were looking at places where similar LEZs are implemented, and we saw that Brussels is one that has more of a penalty-type scheme, whereas London has a ULEZ charging scheme. We know that not much income is received from non-compliance in Brussels. We do not anticipate much income. If it were to cover the operational costs, it would be welcome, because we have an unfunded budget, and there are discussions to be had about how to cover the operational costs of running the low-emission zone.

11:45

The Convener: Kenny, do you want to add anything?

Kenny Bisset: I think that Dom Callaghan and Shauna Clarke have covered all the salient points.

The Convener: Brilliant. Thank you very much.

Mark Ruskell: You have covered quite a few aspects of what makes an effective approach to local air quality management, such as delivery groups having a spread to other council areas, and I think that you mentioned communication when talking about the monitoring of LEZs. Are there any other aspects at the core of the successful delivery of air quality management through air quality management plans?

Shauna Clarke: In Edinburgh, we are drafting a new air quality action plan for the low-emission zone, which will feature as a major action in the plan. As Kenny Bisset touched on earlier, that has meant getting the right sorts of council disciplines, as well as our partners, neighbouring local authorities, SEPA and Transport Scotland, around the table. It is therefore quite the process for the steering group to get that plan constructed. The plan has gone out to public consultation. In fact, there are stakeholder workshops being held today, up the road, to discuss the plan and to try to finalise it. From that, we hope to see the continuation of a steering group and of the priority that that might have in the council.

Mark Ruskell: Perhaps I should put it the other way around, because it seems that you are all working on delivery groups and that they are well established as part of your approach. Is it possible to have an effective approach without a delivery group? I ask that because there are councils in Scotland that have not set up delivery groups, even though they have AQMAs in place.

Kenny Bisset: In my opinion, you should have a delivery group in place. It is a good way of establishing progress on your action plan measures. Furthermore, I think that the best decision that we made in our air quality action plan strategy was to have a quarterly steering group meeting on taking forward the tranche of measures that we believe are helping to improve air quality in our area.

Shauna Clarke: My point was more that we have established a steering group to develop an action plan. It is not something that is set up in the council as a permanent feature at the moment, but the establishment of such a group, with priority in the council, would be of benefit.

Dom Callaghan: I agree with Shauna Clarke in that respect. In the establishment of our air quality action plan, we have a steering group—a delivery group—but, historically, it has fallen away. Once the action plan is in place, however, the responsibilities for delivering certain parts of it might fall outwith the environmental health or sustainability section, and it might instead touch on roads, transport or planning, so it is something that we would look to take forward. We are in a similar position to Edinburgh, in that we have a draft air quality action plan. We will be looking to review that, based on the outcomes of the ESS report and the Scottish Government's report that is based on the ESS report. We will take into account the new guidance and the new template approach when revising our draft air quality action plan but, during its delivery phase, we will certainly look to the planned delivery group having a long run to ensure that the actions that are developed in the plan are taken forward fully.

Mark Ruskell: That leads me on to my next question, which is about those Environmental Standards Scotland recommendations on air quality action plans. There are recommendations on timescale, for example, and, as you say, new guidance will be coming out. What are your reflections on how achievable the timescales for completion will be? I will put that question to Kenny Bisset, because I know that Fife Council has won the award for the fastest production of an air quality action plan, for Cupar. I am not sure whether that is because issues are simpler in Cupar or whether it is down to the effectiveness of your teams and your process for developing the plan. What is your reaction to the ESS recommendation that there need to be timescales for production?

Kenny Bisset: There need to be timescales for production. The timescales that have been presented are realistic and achievable. We have a set-up that can achieve that if any issues arise in terms of air quality in Fife.

Mark Ruskell: Are there resource implications for producing a fast air quality action plan, such as the one that you have managed to achieve for Cupar?

Kenny Bisset: I think that we can do that in 12 months.

Mark Ruskell: With existing resources?

Kenny Bisset: Yes.

Dom Callaghan: When the recommendations in the ESS report talk about timescales, they talk about the declaration of an air quality management area. As I mentioned earlier, our focus is on the revocation of our existing air quality management areas. As things stand, I do not think that that provision will apply to Glasgow City Council unless there is a change in the objective levels under the local air quality management regime, in which case we would have to look again at redeclaring air quality management areas.

As I understand it, the conclusions of the report indicate that, once guidance is produced, we will have a period to revise our current air quality management plan. We are already quite advanced in that. As I mentioned, we have a draft in place, and we will look to revise it based on the other recommendations in the report and the recommendations that come out of any new action planning guidance that was issued. Again, just as with Fife Council, I feel confident that the timescales are achievable for Glasgow City Council.

Shauna Clarke: I am not as positive. Local authorities are definitely under a lot of pressure with resourcing, and, as I mentioned earlier, human resourcing. Even with the recent example in Edinburgh for drafting the action plan, we implemented the LEZ last May, but it took us until the end of the year to have a draft plan going through those steering group meetings and get everybody together. That in itself took some time. The draft plan has to go through political arrangements in the council for agreement on going out to statutory public consultation. We then have to do the important part of the process that is getting the public on board with things, which is not to be a rushed job. In fact, in Edinburgh, we take at least 12 weeks to undertake a public consultation. A lot of bits have to be undertaken.

Mark Ruskell: Is that an approach that you have chosen to take at the City of Edinburgh Council? Is there a quicker way of doing it?

Shauna Clarke: I suppose so. There is a policy statement for undertaking consultations, but there will always be the need to go back to committees and to fit in with the committee timetable at local authority level. In marrying all those bits together, we could struggle with meeting the 12-month

period, but we have always had good working relationships with SEPA, and I trust that if there were any problems with not meeting the time period, we could come to an agreement.

Mark Ruskell: What does the support that is available from SEPA and the Scottish Government look like? Kenny Bisset said that SEPA sits on the delivery group but, beyond that, what does that support look like? Is it adequate?

Shauna Clarke: Really and practically, it is about keeping SEPA up to date with what is going on. The fact that it is involved in steering groups and understands the process, in practical terms, means that the relationship can be two-way and supportive.

Mark Ruskell: Is it adequate?

Shauna Clarke: Yes, I think so.

Dom Callaghan: I agree. The oversight and the aid that we have had from SEPA in terms of local air quality management and the development of the low-emission zones has been invaluable in helping us to achieve that. The Scottish Government's support in terms of grant funding for air quality action plan measures, which I mentioned previously, is also invaluable. I highlight that it may not be possible to cover some of the larger transport-based schemes that may be required through the air quality action plan grant; we may have to seek other funding sources. It is not that the air quality action plan grant is the sole source of funding for air quality measures or measures that are primarily focused on air quality.

Overall, I would say that the current system, with the increased involvement of SEPA in local air quality management since the introduction of the original CAFS, has proved to be a really effective help for local authorities in progressing low-emission zones and LAQM in general.

Kenny Bisset: I reiterate the comments about the assistance that we have had from the Scottish Government and SEPA in terms of our local air quality management duties. We have managed to source moneys by other means, as Dom Callaghan mentioned. We have used air quality as a supportive mechanism for the transport initiatives and have been successful, as we found out at the Bonnygate in Cupar with the improvements in the Cupar town centre plan, which included a road traffic relocation system, for example. I reiterate Shauna and Dom's comments.

Mark Ruskell: I have one final question. Jackie Dunbar raised the issue earlier of the WHO limits, and we had some discussion on that with the first panel. To paraphrase, Gary Fuller was saying that strict compliance may be very challenging, but there is still work that councils can do to look at

pathways towards potentially meeting those WHO limits on an area-wide basis. What is your response to that? Can councils look at what it would take and what the various pathways might be? I suppose that it might be possible to pick particular pathways that match the wider investment that you are planning in active travel or neighbourhood regeneration. I do not know, but it is interesting to know how you might approach that—or is it in the “too difficult to do” box?

The Convener: That is quite a wide question, and I am sure that there will be a huge amount of things on all of your shopping lists. I will ask you for a couple of examples only of things that you would like to see. Otherwise, I fear that we could be here until Christmas.

Mark Ruskell: Yes, or maybe you could just say how you would approach it. The point that Gary Fuller was making is that what councils can do is map out what the pathways might look like. What is your response to that?

Dom Callaghan: I mentioned earlier that achieving the WHO limit values for nitrogen dioxide would require a significant step towards decarbonising transport and domestic heating. Those are most closely aligned in Glasgow with our current climate plan. We have a range of around 60 actions in the climate plan. We are very interested in the pathway as well in terms of delivering our climate plan actions and objectives. We are looking to engage a net zero feasibility pathway project in this calendar year. That will help define what actions we will take forward as priorities and define the work plan towards delivering the climate plan, which will have those air quality benefits as well.

I will very quickly touch on the fact that the introduction of CAFS and CAFS2 aligns the equality side of things more with the climate change side. Developing the actions that benefit both is the path to achieving our climate change objectives and our longer-term equality objectives.

Shauna Clarke: I agree totally with what Dom Callaghan is saying. In Edinburgh, we have a new local transport strategy and we are looking at city centre transformation projects and aspirations. They are all part of the plan. There is a lot going on, and it is about concentrating on the delivery of those and the resources to do that.

I will just flag up something about the WHO guidelines. I got the feeling that there was an appetite to aim towards continuous improvement and whatnot. If you look at how the WHO guidelines are set out, you see that there are incremental points, which are basically stated reductions in concentrations over the years. It is helpful to have targets like that, because, through

a monitoring regime, you can nail that down and work towards something more concrete.

12:00

Kenny Bisset: I totally agree with my colleagues' comments. It is about winning hearts and minds. I find that a lot, from both internal and external organisations, as we progress the air quality strategy and the profile of air pollution rises. I find it very heartening to see the work that my colleagues and I do in our local authorities on this very important public health issue.

Mark Ruskell: Thanks.

The Convener: Fiona, I think that you have one brief follow-up question.

Fiona Hyslop: I want to ask very briefly about air monitoring in schools. In its submission to the committee's inquiry, the Royal College of Physicians of Edinburgh said that it thinks there should be air monitors at schools throughout Scotland. If I am correct, Shauna Clarke said that the City of Edinburgh Council has monitored air pollution and knows the information for its city. Dom and Kenny, what are your views on that? Do you think that it is a proper use of resources? Would it be helpful, or do you already have enough information about schools so as not to require such a major initiative?

Dom Callaghan: I agree that monitoring sensitive locations such as schools and hospitals is a priority. It has been treated as a priority in Glasgow. I hesitate to give a number for the schools that we are monitoring at, but it is significant. Alternatively, we have monitoring very close to schools, at worst-case locations; if there is a major pollution source, we monitor closer to that pollution source than the school is.

One of the benefits of having 20-odd years of local air quality management is that local authorities are very good at understanding what the air quality situation is in their areas. What may have been lacking in the past is significant action to improve things, but I think that we all have a good understanding of what the air quality is in our areas.

I can say, with a high degree of confidence, that all schools within Glasgow City Council meet all the air quality objectives, but that is not to say that we should not monitor a representative sample and try to reduce air pollution levels at those sensitive locations. Shauna Clarke mentioned the school streets programme. Glasgow has a very similar programme in place, and I believe that there are currently around 60 school streets where access is restricted during pick-up and drop-off times, which reduces the periods of time during which schoolchildren might be exposed to

elevated pollution levels. That has the added benefit of encouraging parents to transport their children to school by means other than a car. Air pollution is a priority area that we continue to monitor.

Kenny Bisset: It is a priority area that we continue to monitor, too. We act on it based on the outputs of a Fife-wide dispersion modelling software exercise that we carry out every year. To date, we have had no issues. We would like to progress further, to learn more about it and to try to prevent idling outside schools through a campaign highlighting idling at schools that we initiated last year. We would like to expand that campaign on a Fife-wide basis, because we feel that that has led to us making significant inroads into tackling the issue.

Fiona Hyslop: Shauna, is there anything that you want to say in addition to what you said previously?

Shauna Clarke: Yes, please. I would like to come in again, just for the record. In Edinburgh, there are four schools within air quality management areas. Outwith that, we monitor air quality at a number of other schools. I did not mean to say that we do not do it at all, and we would certainly undertake monitoring if schools are on arterial routes where there is a lot of traffic. Last year, we worked with SEPA on a couple of projects with other schools. The annual mean levels are around 20 micrograms per cubic metre, and we know that the standard is 40. That is to give you a bit of an idea of what we are looking at.

Fiona Hyslop: Thank you.

The Convener: Thank you very much. As with the panel from the previous evidence session, we have overrun slightly, but that shows how interested everyone has been in the subject. Thank you very much for giving your time. We will move into private session. I politely ask you to move as quickly as possible, because we have quite a lot to discuss, but thank you very much for your very valid input.

12:05

Meeting continued in private until 12:17.

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