

London Assembly Environment Committee – Thursday 28 February 2019

Transcript of Item 7 – Deputy Mayor for Environment and Energy

Caroline Russell AM (Chair): That now brings us to today's main item for discussion with the Deputy Mayor for Environment and Energy, Shirley Rodrigues. Welcome to the Committee, Shirley. The following Greater London Authority (GLA) officers are in attendance for today's meeting and the Deputy Mayor may call on them for additional information. We have in attendance Andrew Dunwoody, who is the Policy and Programmes Manager for Waste and the Green Economy; Elliot Treharne, who is Head of Air Quality; Andrew Jones, who is Policy and Programmes Manager for Green Infrastructure; and Claire Jamieson, who is the Principal Policy and Programmes Officer in the Zero Carbon Policy Team. Welcome to everyone. Shirley, can I invite you to make an opening statement?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Thank you, Chair, and thank you to the Committee for inviting me today to give you an update on the progress that we have been making on making London cleaner, greener and healthier.

This time last year [2018] I was at this Committee, before the final publication of the Environment Strategy, to talk a little bit about the Mayor's progress against that Strategy, the first integrated Strategy we have had for improving London's environment. Since then, we have made significant strides in implementing the Strategy which I would like to touch on.

Firstly, the Mayor has taken bold action to clean up London's dangerously polluted air to help improve the health of Londoners. We have delivered 7 of the 12 Low Emission Bus Zones, we have successfully delivered the Toxicity Charge (T-Charge) in central London, and since the start of 2018 only zero-emission-capable (ZEC) taxis are being licensed in London. We have installed over 160 rapid charging points to help taxis and other electric vehicles charge. We have retrofitted over 2,500 buses to meet strict emission standards. We have also introduced air quality alerts to schools and care homes, audited 50 schools to reduce exposure to pollution, and provided £500,000 worth of grants to implement those audit recommendations. These schemes are already making a difference. For example, nitrogen oxide (NO_x) emissions from buses on the Low Emission Bus Zone routes have reduced by more than 85%. On 8 April this year [2019] we will be introducing the Ultra Low Emission Zone (ULEZ) in the central London Congestion Charge Zone area, which will bring even greater benefits to Londoners' health and reduce inequalities in exposure.

As well as this progress in air quality, we are taking action to end the scandal of fuel poverty in London and address the climate emergency we are facing. As part of the Energy for Londoners programme the Mayor has provided nearly £4.5 million of grant funding for energy efficiency improvements. To date, the Warmer Homes programme has received over 1,400 applications and over 400 households have received energy efficiency measures with hundreds more in progress. The Fuel Poverty Support Fund had by the end of last year [2018], assisted almost 1,500 low income households and undertaken 830 home energy visits to provide in-home advice and smaller energy efficiency measures. We continue to support public sector organisations to retrofit their buildings with the current phase of the RE:FIT programme having supported 135 buildings so far, saving the London public sector over 9,000 tonnes of carbon dioxide (CO₂) each year. We have helped over 450 London households retrofit solar onto their homes through our Solar Together London programme. This is in addition to the significant solar capacity being secured on new developments.

In light of national Government's failure to provide a lead on climate, the Mayor of London is stepping up. We are working with 11 leading businesses committed to working to take bold action on climate change through the London Business Climate Leaders Group, to go further and faster than Government, and in September [2018] the Mayor announced his intention to hold the first ever London Climate Action Week, which will be held in July this year [2019].

We are also making good progress on making London greener. By March this year [2019], the Mayor will have directly funded the planting of over 170,000 trees. This is more than the previous Mayor funded over his two terms and we have achieved this in less than three years. 132 community green space projects have been supported since 2017 and during the first ever National Park City Week, held last year, we had over 300 community events that help Londoners to explore our green spaces and get involved in greening their neighbourhoods.

We are also addressing London's waste mountain. To help cut plastic we have already installed 20 drinking water fountains with plans to install a network of over 100 over the coming years. This is on top of the 2,200 refill points that are now available across London. We are leading by example and have phased out the use of plastic bottles, cups and straws at City Hall, and we are supporting nearly 150 small and medium enterprises (SMEs) working on low carbon and circular economy business models. These actions are making a difference to Londoners' lives now and we will continue to take action - and make the case to others to take action - to make London even cleaner, greener and healthier.

Because, as we all know, the Mayor's actions will not alone be sufficient, particularly in areas where he simply does not have the powers or resources to take the scale of action needed, earlier this month the Mayor brought together metro mayors from across the country to make the case to the Secretaries of State for Environment and Health, Michael Gove [MP] and Matt Hancock [MP], for greater investment in United Kingdom (UK) cities to improve air quality. We will continue to take this lead nationally and internationally to encourage others to create the change we need.

I would like to finish by thanking the Environment Committee for your input and recommendations over these past few years, many of which have made their way into the Environment Strategy like those on plastics. That has really helped to inform our work. Thank you for that.

Caroline Russell AM (Chair): We have some questions for you this morning. We are going to be starting off looking at waste, we will then be looking at Zero Carbon City issues and then we will move on to look at air pollution and green infrastructure. For now we are looking at waste and I would like to pick up on London's recycling rates, which are still worryingly stagnant when your targets require the recycling to increase very rapidly. How are you going to go about changing this?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The challenge in London, as you have said, is that we have a very disparate service across the London boroughs. One of the policies that has been enshrined in the Environment Strategy has been a requirement for London boroughs to collect six dry recyclables and a separate food waste collection, to try to get that consistency across London. We are really pleased to see that Government is following suit by introducing a consultation to standardise the consistency of waste collection across the country because that will make a significant difference, we believe, to recycling. That is one part of it.

The other part is to help local authorities to improve their waste management practices. We are doing that by providing best practice guidance and pilots that can show how these things can be improved. We are working through the London Waste and Recycling Board (LWARB). The Mayor has appointed the Chair, I sit on the

Board and we work through that body, which is a partnership between the Mayor of London and the London local authorities, working with organisations like WRAP [Waste and Resources Action Programme] to provide best practice.

One of the projects that we are working on is how you might improve recycling in flats. You know that is a particular challenge for cities but in London it is a very significant challenge with around half of our building stock being flats and more becoming that way. There is a challenge to help improve performance there. We have had some interim results that have just been published from the recycling project which are talking about some of the issues impeding better progress there, issues around communication, signage and motivation. The full results of that pilot will be launched later this year.

Then the Mayor also looks over the contracts that are presented to him. We do not get to see all of the contracts, just new ones. As you know, one of the issues is that the length of recycling contracts is so long that you do not get the opportunity to review them. When we do, we will check to see that they are conforming to the Mayor's Strategy, give advice, use the offices of LWARB and their programmes, including Resource London, to give good practice and get boroughs to adopt that best practice.

Finally, we have asked all local authorities to prepare reduction and reuse plans, which they are doing in phases over this year, which we will then assess, working with them, to make sure that they are reaching the highest ambition. Within those, local authorities will be expected to set their own targets that will reflect the make-up of the borough and their ability to contribute to the Londonwide target of 65% by 2030. We know that some boroughs are performing better, partly because they have more access to green waste because they have more gardens. In some of the inner London boroughs where you have very high density of flats it is more difficult, but the Flats Recycling Project will then feed lessons into the work that they are doing. We should be able to see an increase in the targets and then, as I say, the performance should improve.

Caroline Russell AM (Chair): The boroughs that are falling behind have to publish a reduction and reuse plan but is there any action that you are taking to really press those boroughs to up their game? The boroughs are under pressure. They have budget pressures. Are you convinced that they are feeling the pressure from the Mayor to really make this a priority?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I would not say it was pressure. A lot of local authorities are doing really good work. Over half of the local authorities, for example, have a separate food waste collection. The new policy emphasising a separate food waste collection is something that those boroughs that do not have them are looking at. They might think it pressure but I do not think the Mayor is exerting pressure. It is setting an ambition, a very robust ambition, for where we and Londoners want to see London moving to.

I would say that we are trying to be supportive of local authorities by providing resources. We have asked Resource London, the programme that we are working with, to make available financial support available so that we can support boroughs in developing those plans and sharing best practice. Then we are working with the team, Andrew's [Dunwoody, Police and Programme Manager, GLA] team, LWARB and others—the Department for Environment, Food and Rural Affairs (Defra) as well—encouraging them to go further as fast as they can. Ultimately, the Mayor has a power of direction but as the Mayor himself said at the [London Assembly] Plenary, that is an option of last resort. We want to work in a supportive way. We understand there are challenges that boroughs are facing and we have been making the case to Government, to Defra, on some of those issues, including the lack of funding and the need for a better policy framework. The Waste and Resources Strategy that came out recently and the consultations on, for example, consistency, the collection and the moving to support of anaerobic digestion (AD), all of those sorts of things are policies that the Mayor

has been progressing and pushing for a long time. It is very heartening to see that Government has taken that on board.

Caroline Russell AM (Chair): The thing is, in terms of using those powers of direction, how bad do things have to get before those powers would be used? For instance, Barnet Council have suspended their separate food waste collection, which is a requirement in the Environment Strategy. Are there any other boroughs who have suspended their food waste collection?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Not that I am aware of.

Caroline Russell AM (Chair): That does not trigger the Mayor using a power of direction?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The power of direction requires a legal approach to be taken. You have to take a precautionary and measured approach and you have to make sure the due processes have been gone through, so that is what we have been doing. In order to do that you have to assess what the borough has done and make sure that you have reasonable grounds to take that power of direction forward. As I have said, the Mayor does not want to use his power of direction; he wants to make sure that the local authority addresses the deficiency. In Barnet's case, we have said that the Mayor is minded to use his power of direction but what we want the Borough to do - which they are doing and have agreed to do - is go through the process of setting out the case for how they might introduce a separate food waste collection and what issues might impede them to do that, doing the appropriate modelling work and using independent consultants. That process is now being undertaken and when that report, which is due a bit later this year, we will then review that with the local authority to then decide what further steps need to be taken.

Caroline Russell AM (Chair): Going to the other direction, which is someone who is doing things well, Sutton Council increased their recycling rate by 13.5% after they introduced weekly kerbside food waste collection and went to a fortnightly collection of residual waste. Do you know what the costs are of doing this and do you think it is an approach that you would be encouraging other boroughs to take up?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): In the case of Sutton I do not know the costs exactly but before Andrew [Dunwoody] jumps in I would just point out that each local authority has a different set of circumstances. The cost for [London Borough of] Sutton is not necessarily going to be the cost for [Royal Borough of] Greenwich.

Caroline Russell AM (Chair): Sure.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): In terms of the general approach, we have set out a policy approach in the Mayor's Environment Strategy, the London Environment Strategy. How the local authority chooses to do that is for the local authority to set out and determine because they will best know how they do that in their local authority, whether that is on their own, whether that is in a partnership or whether they do that in a different way because they recognise what their boroughs are saying. We are not requiring that but what we are requiring is that they deliver that service, those separate food waste collections and the six dry recyclables. Do we have Sutton's costs?

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): We do not have those exact costs. Sutton implemented those changes without direct modelling support from LWARB so we were not involved in the cost modelling that went into that decision. However, modelling and experience from other boroughs does indicate that those interventions will lead to improved performance and cost savings. We do not have those details but we anticipate that it was a win-win scenario for them.

Caroline Russell AM (Chair): Broadly, you expect cost savings from the food waste collection?

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): From the food waste collection and increased recycling versus residual waste generation.

Caroline Russell AM (Chair): Is that made clear to all boroughs, that those cost savings can be --

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): Yes, those examples are available to other boroughs.

Caroline Russell AM (Chair): But boroughs like Barnet are still just resisting?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I would not say Barnet are resisting, I would say Barnet are now looking at that. The Mayor intervening and saying, "You need to have a look at this because there are good examples elsewhere, not just in London but nationally. We would like you to take a look at that and how that might apply to Barnet". They are going through that process and we will see what happens when that independent consultant's report comes out later this year.

Leonie Cooper AM (Deputy Chair): Obviously it is very encouraging that so many London boroughs have moved on and are doing the separate food waste collection. I just wondered - and it may be something you can send to us afterwards - if you can tell us how many of the London boroughs are now doing the six separate dry recycling stream collections as well, because I know quite a few that are collecting maybe four or five or three but not all six. I am not aware that very many are doing all six separately.

I just wanted to make a point about the situation with Sutton, who have had this massive improvement bringing them up to Bexley sort of levels. Bexley has always been one of the better boroughs. They have now formed the South London Waste Partnership with Kingston, Merton and Croydon, and I just wondered if it is worth our while monitoring from City Hall or asking them for assistance in looking at how the recycling improves in those other three boroughs now they have come into the same service.

For example, Merton - which obviously I know better than the other two boroughs, being one of my constituencies - have just purchased bins and supplied them throughout the entire borough. They are very hopeful and their intention is to improve up to the same level as Sutton. Perhaps they would be able, through the South London Waste Partnership, to give us some of that information about money. If we then hear from them about the improvements that they have achieved, that can then be propagated to other boroughs as an encouragement if there have been savings, both in terms of less waste to either landfill or incineration but also cost savings, which is such a big thing for local authorities. I just wonder, is that something we can do from here?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It is something that is being done.

Leonie Cooper AM (Deputy Chair): Great.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Through the team, working with the Resource London programme at LWARB, the officers there are in contact with the individual local authorities. They look at the recycling performance and the trends and try to understand what it is that is making that difference. Innovations like the South West London Partnership, which is a very recent thing, are showing a

phenomenal improvement. That gives us the information to start to say, "If this is happening here, what are the conditions that will enable that to be replicated across the rest of London?"

Leonie Cooper AM (Deputy Chair): Precisely. It would be great if we can keep up with that via Andrew [Dunwoody] and yourself, but also if you could let us know which of the boroughs are doing those and what level of the six dry recyclables are being collected on a borough-by-borough basis.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Yes, we will send that to you.

Leonie Cooper AM (Deputy Chair): We can go away as Assembly Members and encourage the boroughs we are representing to say, "What do you need to do? How can we help you achieve all six?"

Caroline Russell AM (Chair): Even assuming that the Mayor's Environment Strategy policies have their projected effect, there is still a significant gap in terms of the recycling targets. Obviously we have the spreading good practice that Leonie has just been following up on, but how are we going to bridge that gap to really make sure that we are meeting the Mayor's targets on recycling?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Again, the gap is going to be made up by looking at commercial waste, increases in commercial waste collection. The waste that is produced by businesses or schools and so on is very similar to household waste: paper, cardboard and so on. We have said that that is a huge resource that is being wasted. It is just being sent to landfill or to be incinerated and much more of that should be recycled. We know, for example, at City Hall that over 80% of our waste can be recycled. We have seen that from some of the recycling companies that we are talking to as well.

We want to see a huge step up in commercial waste recycling. Again, through LWARB we have asked for them to concentrate on offering advice on how boroughs can look to improve their commercial waste collection and offer that service to the businesses in their area. They have a dedicated officer to look at that. That is really the opportunity that will get us to the targets that we have set in the Environment Strategy for municipal waste recycling.

Caroline Russell AM (Chair): Even on your projections, it looks as if about 35% of domestic waste is going to be recycled by 2050. To get back on track, we need to get to a rate of about 50%. That is big. It just feels like we need something much more to get those rates up to speed.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Within the powers and the ability that the Mayor has and within the financial constraints that local authorities are working under -- I completely understand the challenge. That is a big challenge. We are doing what we can do, as we have, largely through support and directing boroughs to where there is good practice. It needs --

Caroline Russell AM (Chair): What about reducing waste in the first place and reducing the materials that are being used and consumed at every level of Londoners' lives?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Mayor has set a food waste target, a food and packaging waste reduction target, and that is again one of the things that we have been asking boroughs to look at in their reduction and recycling plans. We are doing our own work, for example, in trying to reduce single-use plastics with our work on refills and drinking water fountains, but largely that is an issue that has to be dealt with at a national Government level. We are pleased to see that the Government has come forward with consultations on plastic packaging, increasing the use of recycled content, deposit return

schemes and so on. Those are systemic things that need to happen to really drive down the production of waste and increasing the use of recycled content.

Then in London we are, as I said, working with the local authorities. Many of them are doing very good work around campaigns and so on to encourage people to waste less and not produce so much waste in the first place, but I would say ultimately a lot of that needs to be designed out in the first place.

Caroline Russell AM (Chair): I was given an answer to a Mayor's Question that said you need an extra £100 million from Government to increase the recycling performance across London. Can you explain what difference that would make in terms of getting back on track?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The calculation was: what would be needed to fund the increase in local authority collected waste? That was on the order of £100 million to £300 million. Then offset against that would be reductions in waste disposal costs and income from recycling, which would bring you back to the £100 million. That would be the order of expenditure that would be needed to support local authorities to put in the services and the infrastructure that would help meet the recycling target that the Mayor has set.

Government have said that that funding is available and that is what local authorities are funded to do. Their view is that local authorities are funded already to do that and it is a matter of looking at their budgets and prioritising the service, which as you know is a very difficult issue for local authorities. We continue to make the case. What we have argued is for devolution, for example, of the landfill tax credits. I think London's fair share of that would be something in the order of £100 million. We have asked Government to look at other sources of funding and to really think about the fact that this is not just a London issue. Nationally, the recycling rates are stagnating across the country and need to be improved. That needs to be a different way of looking at how we support recycling infrastructure in the country, not just in London.

Caroline Russell AM (Chair): We have done a lot of work on this Committee on single-use plastics. In regard to waste like disposable nappies and period products, things that have very high levels of plastic content, do you think there is anything different you could be doing in terms of dealing with that waste so that it is not just either going to landfill or being incinerated?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Partly that is a national issue because it is about how you ensure that the manufacturers look at the design of their products to make sure that they are either flushable or reducing the use of plastic and other materials that cannot be dealt with in the sewer system. Because it is a national problem, not just a London problem, that is not something we can really help with, but we are working with the water companies, Thames Water and others. They are looking at research. They are doing lots of campaigns around, for example, not flushing wipes down the toilet. You have the videos and things to remind people that these should not really be down there and what the consequences are with the fatbergs and worse, as well as the cost to customers because of having to deal with that. We have done other things through the Mayor's Entrepreneur funding. Last year's winner was somebody who -- I cannot remember the name of the company --

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): It was a start-up that designed a fully flushable sanitary product. They had proven that it would not stay in the water system for more than a few hours once it was flushed. The year before that [2017], the winner was a company called Twipes. That was a fully flushable wet wipe that was proven to dissolve within three hours of being immersed in water.

Caroline Russell AM (Chair): There is the whole business of flushing all this waste. Are you not doing more work to encourage reusable products rather than things that need to be disposed of in the first place? I suppose that is really where I was heading with this. There are reusable nappy schemes and all the reusable period products that are available. We made some recommendations about trying to use the Mayor's powers of communication to get people thinking about not producing this waste in the first place. Are you taking up any of that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Through the reduction and recycling plans we are working with the local authorities to see what they might be able to do across London. They will have much more direct communication with their residents about what they might be able to do. We have done some work on schools, I think, feeding that message in.

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): Through the leading by example aspects of the London Environment Strategy as well, the Mayor is very seriously trying to tackle single-use plastics both here at City Hall and across the functional bodies. A lot of single-use plastics have been removed from circulation within staff areas and the functional bodies have also made Plastic Reduction Implementation Plans. Now the next phase of that is to develop a communication and behaviour change campaign to encourage people to take personal action and to make them aware of the implications of using plastic-containing products.

Caroline Russell AM (Chair): Great. When will that be?

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): That is currently in development, so I would imagine that would be available within the coming month or so.

Leonie Cooper AM (Deputy Chair): I have a couple of slightly disparate points. One is the area that we were just discussing. I think one of the reasons why young women do not go for the reusable period products is because they do not know about them. Is there anything that we can do to get more messaging into schools? We are taking fairly high-level interventionist action around high fat, salt and sugar foods, and getting that message out through schools and also by banning advertising and things like that. Can we not also, as an adjunct to that in terms of our plastic reduction programme, try to do something to get that messaging into schools? It is something that is discussed in schools during the -- they change their name but is it --

Caroline Russell AM (Chair): PHSE [personal, social and health education].

Leonie Cooper AM (Deputy Chair): PHSE? One of those alphabetti spaghetti things. Public health and sex education, is that it? I cannot remember, but the reusable products could be featured alongside other products. It also then addresses period poverty, which is something that a number of Assembly Members have been drawing to the attention of the Mayor as well. That was just a point about that.

I would have hoped that we could do a little bit of support for Real Nappies for London, who are doing wonderful work in a number of boroughs and I am sure would be happy to expand. There must be lots of people; they write to us all the time saying, "I want to get rid of plastics out of my life". Nappies are an absolute nightmare but having something else so that you do not have your house filled with nappies that you have to wash, having a nappy service I would have thought is something that we could just, with a bit of will, put something into.

I actually wanted to talk about textiles. We have just had the report from the [House of Commons] Environmental Audit Committee and Mary Creagh [MP, Chair]. I made a submission to that. I had been working with the Charity Retail Association and locally we have Wandsworth Oasis, who have been absolutely fantastic. They have been talking to the people who run the waste transfer station so that they give out leaflets to say, "Do not bring your textiles here, perhaps bring them to one of our shops". Is there something more that we can do to divert textiles out of the stream that goes into incineration? Fast fashion has meant that so many items could easily be reused and recirculated. It may even contribute to helping the high street stay alive through charity shops, which is why I have also been talking to the Charity Retail Association about this. Surely there is a big opportunity here for City Hall to be leading by example? It meshes with a number of our other programmes.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We already are. I do not know if you have seen our Love Not Landfill campaign which is working through the LWARB. We have been promoting - what are they called? - recycling bins, I guess, which have graffitied artwork by a particular artist, who is probably more well-known by others than me, to encourage people to not landfill but recycle their fashion items so that they can be reused and repurposed in other ways. That has been a very popular campaign. We are working through LWARB again and with the team from the Ellen MacArthur Foundation to look at what more we might be doing to look at textiles, which is one sector of the work we are doing on the circular economy. That is going very well.

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): You mentioned fast fashion and Love Not Landfill has particularly targeted the demographic that would be interested in that aspect of fashion. They have run a series of pop-up shops for clothes that have been deposited at these clothes banks, reselling them and creating social media interest around that. Those have been very successful. Those pilots are continuing to be run and explored and are going to be developed further because of the success so far.

Leonie Cooper AM (Deputy Chair): That sounds good. I am not saying that the Mayor himself has to participate in switching events in pop-ups but encouraging people to do that sort of thing, I think, is really important. Perhaps you could tell us where these artistically decorated textile installations have gone in. Is that all London boroughs or is that targeted to certain places?

Finally, I just wanted to ask the thorny issue of flats and flatted blocks, which we know are an absolute problem in many boroughs. They drag down the recycling level. I think some local authorities are not providing sufficient recycling bins. Quite often, even when people are desperate to recycle, there are not enough provided. What can we do to improve recycling from flatted blocks?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Flats Recycling Project is absolutely targeted at that and the interim results have been really, really encouraging. Obviously first of all we have to have the service there, but we also have to make people feel that it is easy and safe to recycle. They have come up with a number of recommendations and a toolkit, I think, a communications toolkit, which is now online. Do you want to talk about that?

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): The Flats Recycling Programme has five key areas that they are focusing on. It addresses, as Shirley mentioned earlier, messaging, making sure that that really reaches out and connects with the residents of the flats. It addresses the in-house storage problem of not having sufficient storage to segregate waste before you deposit it in bins, and then makes it more convenient for the residents as well, making sure that they have bags to put recyclables in but also have ready access to bins that are the right size, the right shape and are readily

accessible. Newer, smaller bins is what they are promoting at the minute, making sure that it is very convenient for all the residents to deposit recyclables and make sure that they participate fully. There is another part of that as well, which is information packs from landlords within those flatted blocks, making sure that they have all the information they need and the encouragement to participate and recycle as much as possible.

Leonie Cooper AM (Deputy Chair): Your final point there about landlords is so important because that is the other problem, of course, in London and other cities: churn, and people moving in and out all the time. I think landlords should be obliged to provide a complete pack of information about how you can recycle as well as all the stuff about waste disposal.

Tony Arbour AM: I would like, Deputy Mayor, to ask you about waste transfer stations. We have just had mention of them from Leonie. I do not know if you are aware of this but whenever there has been talk about new powers or additional powers for the GLA, our group has consistently said that the one thing that was devolved to the boroughs that we think should be taken back, because it was a Greater London Council (GLC) function, was the operation of waste transfer centres. We have been spelling out today some of the advantages there might be: consistency in seeing that the stuff that goes in recycling can be properly weeded out and a consistent level of service. Can I ask whether or not the present Mayor has any views on the matter?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): On taking control of waste transfer stations?

Tony Arbour AM: Yes, that it should be Londonwide.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): What we have been concentrating on is getting a Londonwide approach, to make sure that people really understand the outcomes that are needed at a Londonwide level. The problem we have inherited, as you know - you mentioned the GLC - is that we have disparate contracts and disparate structures.

Tony Arbour AM: Yes, of course.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): To unravel that and try to change that would need national legislation. We have raised these issues with Defra in terms of pointing out the difficulties that London has in meeting the recycling targets it has, and there are ways that they might be able to help to unravel that but that would require primary legislation.

Tony Arbour AM: It is something the Mayor would wish to promote? In the interim, of course, and we have already discussed this morning the Mayor's powers of direction. I think the boroughs would go bananas if you issued powers of direction on ordinary waste collection but as far as the recycling centres are concerned, that ought to be a matter of encouragement. If I can give you a very simple example of how stupid the current system is compared to the previous system, if you live in Teddington in the London Borough of Richmond and you want to recycle anything at the borough's own waste disposal thing the round trip could be 10 miles, but less than half a mile away is Kingston's recycling centre, to which we have no access. Similarly, across London there are the odd bilateral arrangements that exist.

One would have hoped that this is an area in which we are in a position to use influence - I am not saying that the thing should be delegated through amendment to legislation - and where the boroughs should cooperate. It would have an effect on monitoring the stuff that comes in. It used to be, in the day, that totters would pay large sums of money. They were mudlarking but not on the river and that seemed to work very well. That

again is something where perhaps there should be some kind of consistent policy. I can only tell you that as far as our group is concerned, that is something that we will continue to give you support on.

However, the matter which I have been asked to raise with you relates to progress at the Cory Riverside [Energy] site. Where are we on this?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Cory [Riverside Energy] have put an application in to create what they call an integrated energy park, which includes a 665,000 tonne per annum incinerator, a very small AD facility and some other things. The Mayor is opposed to that and has clearly and publicly stated his opposition because we do not believe that we need any new incineration capacity in London. We have sufficient incineration capacity and the existing incineration capacity of London is not fully utilised. The heat offtake is not utilised even at the existing site that Cory has so we are not quite sure why they want to extend it.

The matter has been deemed a nationally significant infrastructure project so it is going to be determined by the Secretary of State. The Mayor is the statutory consultee. We are in that process at the moment. We are waiting, I think, for a date for when the Planning Inspectorate will determine the application. I think we have sent in our grounds but we have not written the full evidence.

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): We are currently at the pre-examination phase. We have submitted our relevant representation and we are continuing to develop our paperwork in preparation for that examination period, which we believe is likely to be towards the end of the spring and run throughout the summer.

Tony Arbour AM: The spring of 2019?

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): Yes.

Tony Arbour AM: Am I right in thinking that will be the first one we have had in London? Excluding airports and that sort of stuff, is it the first time we have had one of these schemes which are deemed so important that it has to be determined by the Government? That will be the first, will it not?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I am not sure about the importance but certainly on the size of it. I think it has been determined on the size of the tonnages and the expected energy output.

Tony Arbour AM: Can I ask, who is it who supports the Mayor in his belief that there is sufficient incineration capacity in London?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Government does, I think.

Tony Arbour AM: Do they?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Government in its Waste Strategy has looked at its strategy and said that if their targets are met they do not believe any new energy-from-waste infrastructure is needed. That is in England, I think, rather than the country. I think we have support there from the Government. Certainly the consultation responses that we have had were very supportive of the Mayor's policies about ensuring that our focus is on recycling.

We have very many incinerators in London, many more than we need, we think, and we think that is partly why recycling has been stifled. We want to make sure that those existing incinerators have the energy taken off them and used. You will know that we have been talking about this for many years in London and we are only just starting to see that heat offtake being taken and used by homes. Waste is such a valuable resource, it is shocking that it is being incinerated.

Tony Arbour AM: Of course there is a contrary view which is that it is the ultimate in sustainability: it is turned into energy and the stuff which is left as a residual from that is used as aggregates. My understanding is that indeed this is part of the Cory case, or whoever it is who owns Cory now. I think the company has been taken over.

Now, the reason we are holding this meeting and we are discussing waste is related to the fact that the targets are not being met. What you have said about surplus incineration capacity depends on the fact that waste recycling rates are going to improve. There does not appear to be any substantial evidence that that is happening. Is it not a kind of 'dog in the manger' attitude to say that therefore we do not need any more incineration?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): No, I do not believe so. The Mayor has set an aspiration in order to ensure that we extract maximum value from the resources we have, and we do that by recycling. Anything that is residual is then dealt with through the waste hierarchy but we want to minimise what is left to be dealt with through landfill or incineration. We have sufficient capacity to deal with that if people meet that recycling rate. We know that people want to recycle more and we know that it is valuable to recycle more. I do not think it is 'dog in the manger', I think it is absolutely the right thing to do. We have had countless reports talking about the value of the circular economy to jobs, to the climate, to resource consumption and not wasting resources, and it is absolutely essential that we start at the top of the waste hierarchy which then minimises the need for additional waste incineration.

Tony Arbour AM: That is all motherhood and apple pie for the nation and national policy. We are here in London. I look out at the river here. What more sustainable way is there of transporting waste than by river to an incinerator on the river? Much, I guess, of the spare incinerator capacity --

Leonie Cooper AM (Deputy Chair): Or not producing the waste in the first place so that it does not need to be transported down the river at all.

Tony Arbour AM: But I have just said that. That is why we are having this meeting, because we are producing the waste and we are not actually cutting down. Given that the thing exists, does it not make sense that such waste as we have is disposed of in this -- and I am afraid I disagree with you. I think that incineration is sustainable, transported by river. When you think of the huge amount of pollution which is generated by taking stuff to landfill, even though landfill is declining, I cannot think of anything better than having incineration capacity whereby the waste is transferred by the river. Of course, here at the GLA we are constantly having meetings saying we should be making more use of the river for these kinds of industrial purposes. I am very sorry to hear that the Mayor is persisting in his opposition to the riverside site.

Caroline Russell AM (Chair): I just wanted to pick up on this question of incineration being sustainable. Can you just comment on the sustainability or otherwise of burning plastic waste that has come from fossil fuels, reburning it in an incinerator? Surely this is not a sustainable practice?

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): I would agree with that position. Apart from the fact it creates greenhouse gases and it is a waste of materials because the

materials could be recycled and reused. If they are incinerated then those materials are lost to the value chain forever and can no longer be used. Incineration and landfill are both more expensive than the alternatives for recycling or reuse. I would not say it is sustainable.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Absolutely what we start with is the waste hierarchy, which is reduction. That is where we are all required to start but also it makes common sense and economic sense.

Len Duvall AM: Thank you very much for your earlier opening answer to the Chair in terms of the Mayor's achievements in this area, but he was a bit lacking in terms of waste. It was only when we had the other questions associated with waste that you started to map out the Mayor's approach to waste.

I just want to comment a little bit about the incineration. Unless we can reduce waste in the first place and increase recycling rates, which is this part, we are almost covertly agreeing with those who want to incinerate. It is not moving. There is a problem here. I do not think there is enough emphasis on moving fast or the acceleration about that problem.

I am new to this Committee so forgive me but there are issues about recycling rates and the infrastructure. Obviously, the infrastructure too I want to talk about, and those who take decisions about it, ie the waste infrastructure. My colleague, Assembly Member Cooper, highlighted one way people are coming together, which is those issues, and then I think there is infrastructure about how you deal with recycling in the first place and why people are not doing it, or motivations.

Let us deal with the first one. I get the feeling that unless you tell me it does not really matter, right? It does not matter how many waste authorities we have in London or whatever. Your key strand to attack this issue is to get some consistency up. A former Conservative colleague of ours on the Assembly, Brian Coleman, was all against those issues of a single waste authority for London but actually became a big advocate for it later in his term of office. I do not get any feeling from the Mayor of what his view is about this infrastructure: whether we should have one single waste authority, whether there should be four subregional ones or what. Is it not important that we take a stand on the issue? If we do not want to force people to do it by direction, is it not important to have that link between infrastructure and recycling rates? I think earlier questioning said it is quite important, but I do not get the feeling that we are moving on that issue or even putting up a flag on a mast and saying, "This is the position of the Mayor and this is what we should do if we want to increase these rates". Discuss.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): You will remember, Len, because I think we were both here at the time, the amount of time that went into arguing about a single waste disposal authority with people like Brian [Coleman] and others. It was a huge distraction from actually helping boroughs to get on with improving their services. It is something that would be helpful and, as I said, we have raised these issues at officer level with officials, pointing out the difficulties when you have contracts that do not align, that have different gate fees and so on.

Improving that would be something that they would be able to deal with, but in the meantime our focus is very much, as we said, on supporting boroughs through the reduction and recycling plans, through the programmes that we have at the LWARB and through the work that we are doing here at the GLA in order to increase the ability of boroughs to deliver. There is still the issue that boroughs know what their local circumstances are best, which is why we have set out a high-level approach of what is needed across London, the consistency of policy and approach, but how boroughs deliver that we are leaving up to boroughs.

Len Duvall AM: Would you agree with me that we could see a major step change in these recycling rates if there was -- in your words, Andrew [Dunwoody], "Disparate stretches, disparate contracts", I think I wrote down here, in terms of bringing them together. Would it make a difference? Would it make a substantial difference?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It could --

Len Duvall AM: Now, the question of whether you want to spend time and effort on it is up to you. I do not mind that, but I would like to know whether that is where we should be aiming. You and the Government working together with local authorities, saying, "If we really want to make a difference we have to do something differently. We have to do the structures differently, get hold of these contracts and work them in a different way"; I do not see that. I do not see that position. I see lots of good effort going in there about sharing good practice but if you really want to change and, I suggest, meet these targets, then you need to do something slightly different or at least move towards it. I am not into beating people over the head --

Shirley Rodrigues (Deputy Mayor for Environment and Energy): No, of course not.

Len Duvall AM: -- and I am not into giving directions, but I am into people leading a discussion about what is best for London in this particular issue in terms of increasing recycling rates. It is that.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We have done that through the development of the Environment Strategy and we are doing that through developing our response to the Government's waste recycling strategy as well. It would need a lot more consideration because things have changed in terms of the international and national context as well.

Len Duvall AM: Are we in agreement then for a single waste authority or are we in agreement for four strategic or a number of strategic waste authorities in London? What is the Mayor's position? That is what I would like to know. What is it?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Our position at the moment is to work with the existing structures that we have and use the opportunity of the Government's waste strategy to raise the issues that are impeding and could facilitate an improvement in recycling rates in London. One of those things would be looking at governance. The other would be looking at resourcing. As we said, what boroughs are telling me is that it is not the governance that is stopping this, it is not having the finance to enable the infrastructure to go in or to enable them to provide services that would meet --

Len Duvall AM: OK, let us talk about finance then. What is the ask? You earlier alluded to - and we will no doubt go into that - the air quality ask, going into the Comprehensive Spending Review. What are we saying about waste in London? What is the ask? It may relate to a secondary question I want to ask. What is our bid? What is the thinking?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): In the Waste Strategy we have identified a net cost of £100 million and devolution of the landfill tax credits. As I alluded to earlier, that is net. The costings, depending on the recycling rate that you are going for, are between £100 million and £300 million. We have had conversations with London Councils to talk about how we might develop a better case and a more refined case as part of the Comprehensive Spending Review that is coming up on waste management, so those figures may change.

Len Duvall AM: Now to turn to the other infrastructure, the recycling infrastructure, in terms of the private sector and some of the third sector, like the organisation that Assembly Member Cooper mentioned. It is quite interesting because I thought that was part of the problem, really: you signpost people to another place to go and take it. We want to make it easy for them. If they are putting it in one place, why can you not -- I do not want to use the word "direct". Why can you not just say, "Where there is infrastructure in position in your locality on textiles, we want you to separate it at that point", not make me do an extra journey, because I would be adding to all sorts of pollution, no doubt, in doing the extra journey. We know recycling is all about making it easy.

What can we do apart from good practice and encouraging? Encouragement is fine as an approach but it is not going to do anything for these targets. We are going to carry on. More of the same is not going to make us meet your ambitious targets. That is my contention at this moment in time. The question then is, on that infrastructure, how do we support those recycling bits and pieces that make things happen more easily for those collecting waste and taking it wherever they use it, dispose of it or hopefully reuse it again? What is our plan? What is our strategy for that? What are we doing about that infrastructure?

I presume it will not be just your unit. This is a crossover to the London Economic Action Partnership (LEAP), is it not? One of the arguments about recycling is that it could be commercial. Some of it may need subsidy and I think there is an argument about subsidy. I am not afraid of talking about subsidies. Tell us what the strategy is and what the thinking is.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The strategy that we have set out in the Environment Strategy and the London Plan talks about making sure that we have sufficient space for facilities for reprocessing, recycling and so on. The Environment Strategy sets out the policies. The mechanism for ensuring that boroughs take this seriously is through the reduction and recycling plans. This is a new approach. Previously, when the contracts came up every 10 or whatever years, that was the only time that the Mayor was able to intervene and say, "You should really be looking at things differently". As you know, the Mayor's powers are very limited in that he can comment on the contract specification before it goes out to tender but once it has gone, that is it, other than a voluntary approach with the boroughs.

The reduction and recycling plans, the boroughs are mandated to prepare them and they are mandated to look at the whole of the service. One of the things Assembly Member Arbour talked about was waste transfer stations and making things easy for people, not having to travel across the borough. We have asked boroughs to look at cross-borough arrangements. Where I am in my borough, I face exactly that problem. We are saying, "You have to make it easy for people so we would like you to look at that", and as part of that approach that will give us a sense of what is possible for boroughs and what more they might be able to do.

Some of that would require contractual changes, which then incur a cost. Sometimes it is not the willingness of the borough to do that, it is the willingness of the contractor. It is a big issue for certainly some of those East London Waste Authority boroughs that have some very poor recycling rates. That is something again that we have been looking at, what more we might be able to do to get those contractors to step up their game in London because they are impeding the recycling rate for those boroughs and then, consequentially, London.

That is the mechanism. Through that mechanism we will be assessing and challenging the borough's response to delivery and the make-up of the service, using the best practice that we have seen from, say, Sutton or other boroughs to say, "They are able to do it and it could bring you waste savings you could redirect into the service to enable you to do more or do it better, so what is your rationale for not doing that?" That is exactly what we are going to be doing. Then ultimately the Mayor has a power to direct but as I have said, we have to

go through the process to make sure that we are on solid ground for taking forward any sort of action like that.

Len Duvall AM: He is not likely to use that, is he, because he wants to go for - I think there is no one right answer to it - a consensus approach? But there comes a time, would you not agree, when that consensus approach does not work? I am not going to put you on the spot, "When is the Mayor going to do a direction?" but can I ask it from a different angle, then? Do we have projects in the pipeline where we are working with local authorities - you mentioned one about encouraging the cross-border issue, which answers Assembly Member Arbour's point - or in partnerships with either the third sector or the private sector, maybe? Maybe it requires a bit of subsidising and pump-priming for the alternative infrastructure, not the incinerator infrastructure. Cory is way ahead there. There must be some of those in London. How many projects do we have like that that are active and that may well be talking to other colleagues in this building from an economic development point of view and support in those terms? What do we have?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We have a couple of projects, again, through working with the Waste Action Board and also through the Economic Development team: accelerators, people coming up with ideas for new products and new services; the commercial waste that I was referring to, which is about encouraging local authorities to collect more commercial waste. That is either the local authority itself or creating new partnerships with the private sector. That sector economy approach is really about encouraging new businesses and existing businesses to change their business models, to recognise that business models are changing, to focus on more of that circular economy approach. That reduces the amount of waste produced in the first place. It reduces the amount of waste that has to be disposed of in a more unsustainable way like incineration or landfill.

Len Duvall AM: In terms of supporting some of those areas, if we take Assembly Member Cooper's project on textiles, if they are working in a borough and we know, presumably we map what we think the gaps are - independently or maybe working in partnership with others - in London at different levels of bits we want to recycle. Is that true? Do we have an independent assessment or is there a partnership assessment done by the Board that you mentioned? Does that exist?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I am not quite sure about the gaps. We know that we need to do more on certain sectors, but we do not have a borough-by-borough map. Local authorities would get a sense of where they are not collecting, say, enough food waste, but I am not sure that we would have a map of --

Len Duvall AM: The infrastructure gaps?

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): Not a map of the gaps. We have a map that shows the infrastructure we have in place for various waste streams, but that is more about the existing infrastructure in order to be able to protect that rather than gaps *per se*.

Len Duvall AM: Would it not be useful to have one?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Possibly. I am struggling. At a very specific level - textiles, for example, that are wasted in Southwark and Bromley and understanding that - you would get a high-level view, which we have done through the LWARB sector economy report, which recognises the value in that sector that needs to be then addressed. That gives the high-level size of the problem.

They have also come up with a route map for how you might look at that and have various projects in train to help reduce that approach, which includes some of the support, the accelerators, the technical groups, the best-practice groups and so on. Then we have the finance available to support that through the LEAP and other programmes. We have that in place.

I am not quite sure. If you are looking at a very specific issue, we would have to do more research, I guess, on it.

David Kurten AM: I noticed in answer to Assembly Member Arbour's question on incinerators you said that London has many incinerators, many more than we need. I just wanted to ask you. How many do we have according to your figures and how many do you think we need?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We do not need any more. We have three or four.

Andrew Dunwoody (Policy & Programmes Manager – Waste & The Green Economy): Four, I believe. I am not sure I have the information to hand --

David Kurten AM: We have four at the moment and that is more than we need, you think?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The capacity that those incinerators have we have modelled against our 65% recycling target. On that basis, we do not need any more energy-from-waste incineration capacity in London.

David Kurten AM: Would you like to see some of them closed? Do you think some of them should be closed? You did say we have more than we need. Would you like to see some of them closed?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We would prefer that they were not needed anymore because we are recycling more. We need to support the recycling approach we are taking, which will then boost the amount of tonnage of waste that is being recycled, which would then essentially make them redundant over time, yes.

David Kurten AM: One of the problems with recycling that I see is that people recycling in good faith but a lot of the recycling does not get recycled in this country. We used to send it to China and now China has changed its rules and will not take our recycling. Instead, we send it to Bangladesh, Indonesia and places like that. That is not taking responsibility for our own waste in this country. Do you not think that incinerating it here, in the UK, would be better than sending it to Bangladesh, Indonesia or Vietnam?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I take your point, but our modelling is based on London dealing with its own waste in London. We have looked at the current incineration capacity and taken that into account and we think that can be done. The Cory incinerator extension is proposing to import waste from outside of London and presumably from other places to incinerate rather than using its existing capacity just to deal with --

David Kurten AM: I imagine they could deal with the waste that we now send to Bangladesh and Indonesia. That could be incinerated here. We could take responsibility for it. That is a good thing, is it not?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): That is not London's waste. London's waste can be dealt with by the existing capacity and, if we recycle more, we will not need any more incineration capacity.

David Kurten AM: Provided the recycling is done in this country. You have to look at the issues holistically. Anyway, that was just a point. It would be good if you could consider that.

Caroline Russell AM (Chair): Thank you. I am going to move us on. I would like to take this opportunity to welcome some visitors to the gallery. We have students from New City College, Hackney, NewVic College, Newham, City and Islington College, Islington, and Richmond upon Thames College, Richmond, who are undertaking environmental campaigns as part of the My World My Home programme in their colleges and communities this year. Welcome to all of you.

We have just been talking about waste and recycling and we are about to move on to discuss the climate emergency. I am going to bring in Assembly Member Cooper. Actually, we are not discussing the climate emergency. We are discussing something that relates to the climate emergency, which is zero carbon in London.

Leonie Cooper AM (Deputy Chair): When the Mayor took office in 2016 and when he was working up his manifesto in 2015/16, he set a goal in the manifesto that London would achieve zero-carbon city status by 2050. We were ahead of the rest of the world at that point in making that declaration and it was very welcome to see a Mayor very committed to that.

However, now the rest of the world has looked at the more recent Intergovernmental Panel on Climate Change's (IPCC) reports and is catching up with the idea that we have to be heading towards zero carbon by the middle of the century if not earlier. We passed a resolution in December [2018] saying that there is a climate emergency and that we feel it is urgent to try to limit global warming to 1.5 degrees. The Mayor has then followed what we agreed in the Assembly by declaring a climate emergency.

Should we be looking to extend our ambition and speed up our trajectory towards zero carbon?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Mayor, as you have mentioned, has already recognised that we are in a climate emergency by saying that he wanted to make London a zero-carbon city by 2050. All the policies that we have in the Environment Strategy and the suite of strategies that have been published in the London Plan through to the Economic Development Strategy and the others all recognise and try to give effect to that ambition.

We have undertaken very detailed modelling for this Strategy, which we then have checked with independent assessments and auditors through the C40 Cities Group and their people, to ensure that our plan conforms with a 1.5-degree compliant plan, which is essentially what the IPCC report was saying was needed.

That report said that it is really important that we take action in the next 12 years. It is not necessarily saying that we have to change our target. It is very clear that the actions that are needed need to be undertaken very quickly and get that underway. All of the actions it is talking about that are within the gift of the Mayor are within our Strategy and we already have programmes underway in many of those areas.

Leonie Cooper AM (Deputy Chair): I am just wondering. We are a very affluent country. We have been emitting a lot of greenhouse gases for a long time because we had our Industrial Revolution very early on. At one point, we were also deemed to be the 'dirty man of Europe' when we allowed lots of acid rain to float all over the rest of Europe.

We have cleaned up our act in many ways, but should we be moving faster to try to achieve a zero-carbon city by 2030? Would you be looking for all the political parties as we head towards the elections in 2020 to be making a pledge to start to speed up what we are doing? This period of 12 years and action to take is going to be absolutely critical. That is what everyone is saying.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It is absolutely right that we need to speed up and you can see from my opening statement that the Mayor has already embarked on a number of areas within the powers he has and with the resources he has to speed that action up. He has made his case to the Government in a number of consultation responses and meetings about what more is needed. We are waiting to see the Committee on Climate Change (CCC) report, which is due out shortly and which is looking at the IPCC report to see what is needed to be done.

The focus is very much on how we might accelerate action. As I mentioned, again, in the opening statement, the Mayor has been really clear that in order to speed up that action, we need the Government to set the right policy, for example on decarbonising heat. We still need to understand what it is going to talk about and what direction it wants to go. The biggest policy the Government could help with is making energy efficiency and funding energy efficiency a national infrastructure priority. That would help not only our carbon targets but also the scandal that we have with one in ten households being in fuel poverty in London. As you mentioned, we are an affluent society and that is shocking.

Leonie Cooper AM (Deputy Chair): As you know because you have heard me talk about it only very recently, that is a view that I share very strongly. It needs to be a national infrastructure priority.

If I can just come back to the carbon trajectory for the Mayor, the previous Mayor had set a target that looked to achieve more earlier. I am still concerned that in that early period between 2020 and 2024 we might be moving a bit slowly. We need to be moving more quickly. Is that something that your team will be reviewing so that we can speed up work towards that target?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We reviewed that as part of the Environment Strategy. The previous Mayor's target was unachievable because a lot of the national Government policy that it relied on had been taken away: the Green Deal, the energy efficiency measures and so on. We have been arguing for the reinstatement, for example, of the Code for Sustainable Homes. We have seen a recent report that said that, nationally, it is costing people £200 a year because of that national energy efficiency approach. Luckily, in London, we have managed to retain a zero-carbon homes policy. The Mayor is extending that now to zero-carbon development because we see the value in that for people's and businesses' bills and, as I said, also for fuel poverty.

We have reviewed that target. What we have decided to do is to look at the pathway or the trajectory to get to zero carbon by 2050 in a 1.5-degree compliant way, in a Paris Agreement way, and we have set out a series of carbon budgets and the policies that need to happen. That is set out for the next 15 years in three carbon budgets. Rather than just setting an arbitrary date and an arbitrary number, the team has worked very hard to work bottom-up to see what is possible in London. Given the policy context that we have and trying to understand what might be possible permutations, we have picked a way that will give us a no-regrets option over the next few years whilst we have the policies and the powers that we have. Then there are trigger points that would allow us to pivot when the Government makes a decision on decarbonising heat or when it decides something around energy efficiency.

At the moment, the Mayor has powers to deliver only half of the emissions reduction that we have in London. We absolutely need the Government to step up. Preferably, we need the Government to step up and to devolve more powers to the Mayor. For example, being able to set minimum energy efficiency standards and being able to regulate that would be a great help both in talking about energy efficiency and in helping to tackle fuel poverty.

Leonie Cooper AM (Deputy Chair): I want to move on to talk about domestic energy efficiency, but I do really agree with you about the scrapping of the Green Deal and the Energy Companies Obligation (ECO) has never really delivered and the Green Deal has never really delivered. Scrapping the Code for Sustainable Homes has been really unhelpful. However, it is not just those new homes; it is good that the Mayor is saying, "Let us keep zero-carbon homes for new build", but we also have the issue of the vast amount of London's housing stock that the Green Deal and ECO have not really even touched the sides. Most loft insulation has been done but other elements of insulation are very difficult. A lot of the stock here is Victorian and Edwardian solid-wall and so on.

What are we doing around domestic energy efficiency retrofit? It is not just for housing associations and local authorities to step up. We also need to be driving that much more in the private sector. The private rented sector particularly has been massively growing. I just wondered if you could set out what we are going to be doing on this because this really addresses also fuel poverty and the really high bills that some people are suffering from.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): When the Mayor was elected and came in, we looked at the programmes that we had, and we reconfigured them. We have a Warmer Homes Programme which is now looking at deeper measures because of, precisely as you said, Assembly Member Cooper, the number of homes that have had the very basic measures partly funded through ECO in previous years have been done. To get the carbon emissions and to deal with the fuel poverty problems that we have in London, we really need to go much deeper.

We are doing two things to address that apart from the lobbying for more powers and the resources that we need. One is the Warmer Homes Programme, which is providing funding for people to improve the energy efficiency of their homes but taking a slightly more holistic and deeper approach. We are recognising that we cannot just put a boiler in and then leave because often there are things that will counter the impact of that boiler. We would be looking at damp-proofing and so on. It makes it slightly more expensive per home, but it makes it a much better outcome for the tenants or residents because it means that they will have the thermal comfort, better health and wellbeing, and cheaper bills. That is one thing that we are doing. The Warmer Homes Programme is something in the order of £4.5 million. We are anticipating that we are going to be implementing it in over 1,000 homes that will be funded out of that programme. We have had 400 or so installed already with many more installations going in. We are looking at a successor programme to that.

Leonie Cooper AM (Deputy Chair): Can I just ask you? We have just produced a report through the Committee and we also paid a visit to the Thamesmead [Housing Co-operative] and to Peabody Housing Association. They have been very careful to triage the residents and the properties to make sure that they go to the homes where they have had the worst problems. They are planning a big redevelopment of the estate, but in the meantime, there has been a lot of people living with cold, condensation, damp and mould. One of the things that came out very strikingly from that is that it is not good enough to just put in a new boiler or new windows to make somewhere warmer; you also need to be really careful about what you are doing in terms of ventilation.

I just want to check first of all that you have perhaps even had the chance to look at our report and also that ventilation is part of what you are doing so that you bring those measures together. Otherwise, you make a house nice and warm and it becomes watertight, effectively, and then you create lots of warm space and dampness, and that creates mould.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): That is essentially the Warmer Homes approach. We have learned lessons, including from talking to people at Thamesmead, which recognise that it is not enough just to put something in and leave because it does not make it effective. It is looking at ventilation, looking at damp-proofing, talking to the tenants themselves. We have funded a programme that now operates London-wide that identifies and refers people who are in fuel poverty to the Warmer Homes Programme and in the meantime --

Leonie Cooper AM (Deputy Chair): How are you identifying the people in fuel poverty? That was something they had been very good at in Thamesmead. They had triaged people. After producing the first London Fuel Poverty Action Plan, how are we doing with making sure that we are getting the measures really targeted to the people who need them most?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It is precisely through that service because the local authorities that are part of this London-wide service and the non-governmental organisations, like Citizens Advice, make referrals in because people have come to them with problems around fuel poverty. They have done the assessments and given them energy and income advice as well.

It has meant that the applications we get and the throughput into the pipeline for installations is much better. Before, there was a lot of dropout because they were not necessarily eligible. It has meant that it is a very high conversion rate in terms of referrals into installations or approvals for installations.

Leonie Cooper AM (Deputy Chair): Are you also getting referrals from the Citizens Advice Bureau, which is quite often doing debt counselling with people who are on the edge of having their meters cut off and things like that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Through that service, the borough and the Citizens Advice Bureau are working together.

Leonie Cooper AM (Deputy Chair): They are referring in as well. That is great. Is that, do you think, the span of what the GLA is able to do in terms of addressing what has been a failure in the retrofit market? Is there anything else that we can do to improve how we target getting to the right properties and the right people as quickly as possible?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): One of the things that we have been doing is also starting to trial a private rented sector approach. We have very many tenants who are in fuel poverty in the private rented sector. The problem has been that they may want to apply but they need the landlords' permission. Sometimes the landlords want to do it but they need the tenants' permission. We are trialling that approach at the moment. The minimum energy efficient standards upgrade allows for a contribution for the landlord to contribute, but it is capped at something that we did not agree with - £3,000, when we were looking at £5,000 as a minimum in London - in order to enable those improvements. We want to see how that works, but it is the first time it is being done, certainly in London. We want to be able to see how that works, but we know that is a massive area that needs to be dealt with.

Leonie Cooper AM (Deputy Chair): Perhaps afterwards you can write to us and tell us how many of those private rented sector properties have gone through that scheme and how that is developing.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): How it is working, yes.

Caroline Russell AM (Chair): This Committee has actually recommended previously that London should be going ahead with its own funding scheme using the energy savings to repay loans and recycling those repayments into further loans. I have a quote from the transcript from the 6 December [2018] meeting that *“the GLA is looking in the coming couple of years to identify funding models and business cases potentially involving the Mayor’s Energy Efficiency Fund or the GLA’s green finance workstream to enable retrofit in London to be financed independently of Government programmes.”*

Can you just tell us a bit about that work in terms of trying to have something that is London-run in terms of funding this work?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We have been working with the Mayor’s Energy Efficiency Fund and also with the London Sustainable Development Commission and the team here, looking at what funding models might be available to support energy retrofits in the private rented sector, social housing and able-to-pay. It is a very complicated process. That is one of the things that is being examined at the moment. We hope to have some sort of report at some point but I am not exactly sure where we are with it.

Caroline Russell AM (Chair): Do you have any kind of timescale on that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Not yet, no, but I can write to you on that.

Caroline Russell AM (Chair): If you could, it would be very helpful.

Leonie Cooper AM (Deputy Chair): I am coming back to what might be something that is picked up by Energy for Londoners: energy for Londoners. We have been waiting for it with bated breath but we did not, luckily, hold our breath because that might have been a bit awkward. Would you like to tell us a little bit more about progress on finally setting up London’s affordable energy supply? I was not expecting it to be set up by June 2016, but it does feel as though it has been a bit of a long time coming.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): All right. I am just trying to find the page with my words.

Leonie Cooper AM (Deputy Chair): Hopefully that will not take quite as long as getting Energy for Londoners set up.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Just to be clear, we are in a procurement process and we are doing that through a competitive dialogue process, which basically means that we have detailed and confidential discussions with the potential bidders. That is working very well in that we are able to set out exactly what the Mayor is seeking in terms of his ambitions for that supply company and understanding what the market can offer. As I have said, we have had very good discussions.

The complication is that this is the first time it has been done in London. It is a novel project and so it is one that we need to take forward very carefully. We are in an Official Journal of the European Union (OJEU)

process, which, as those of you who are involved in OJEU processes know, is very long and complicated. We are in that process and we hope that we will be coming to a conclusion soon, but that is all I am able to say at this moment to respect the confidentiality of the process.

Leonie Cooper AM (Deputy Chair): We are not still looking at a launch of Energy for Londoners in the summer of 2019? Somehow I had absorbed that information from somewhere.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We are hoping to launch at some point this year [2019] but I cannot say more than that because it really depends on the outcome of the procurement.

Leonie Cooper AM (Deputy Chair): We are hoping to launch at some point in 2019?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): That is the ambition but it really depends on the procurement.

Leonie Cooper AM (Deputy Chair): It is disappointing to probably the entire Committee. I know Licence Lite took about 100 years in the end to be nailed down, but that is now operational. I had hoped that the learning from going through the processes with Licence Lite might have made this process slightly faster. No?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It is a very different process. We are working with energy companies in a market that is changing very fast. We are wanting to make sure that it is still relevant. As I have said, we do not have our own contact with residents or tenants. We are not a local authority.

Leonie Cooper AM (Deputy Chair): We do not have stock, yes.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): As I have said, this is the GLA and it is a different proposition. However, it is a much quicker route than if we had gone down alternative routes.

Leonie Cooper AM (Deputy Chair): My feeling was that given that we are in a different kind of market and that we have a couple of the smaller energy start-ups now facing some difficulties and that it probably would have taken even longer if it had been a directly managed, fully licensed energy company, this is probably the best alternative and possibly also is a stepping stone to a full energy company once this is launched. That is why it is particularly disappointing to me that we have not been able to move ahead more quickly with this. It does seem to be moving very slowly.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): One of the reasons is because the Mayor is being very demanding. You will have seen a number of the smaller suppliers come in with a very low tariff that they are not able to support and then go out of business. That cost falls on other energy companies. In theory, the customer just moves over.

We want to make sure that we have a solid proposition that deals with the issues that customers have raised about wanting tariffs that they believe are fair, that they have good service and that they have a trusted supplier. To do that, we have to be really careful about the procurement process. If that takes time to make sure that we mitigate those risks or avoid them altogether, it is well worth doing rather than launching something that then damages the ambitions we have to show that we can deliver fairer competitive prices and good service and tackle some of the environmental and fuel poverty objectives the Mayor has set out.

Leonie Cooper AM (Deputy Chair): At the centre of the offer, we will definitely be seeing an opportunity for Londoners to easily access low prices for their energy?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): That is absolutely central to the offer. It is within a range, but it is a competitive price, yes.

Caroline Russell AM (Chair): Could I just come in here? I wondered about Transport for London (TfL). I understand it uses 2% of the electricity supplied in the whole of the UK. That is part of the GLA Group. Does that part of procurement give you a massive customer very early on for Energy for Londoners?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The energy company we are setting up is for domestic residents. It is not for --

Caroline Russell AM (Chair): Only domestic?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Yes. What we are doing with TfL is looking at how we can make that energy purchase more green and how we might reduce its energy for a start. TfL is doing lots of work on the energy efficiency approach for stations, rolling stock and so on, but there are two separate things, essentially.

Caroline Russell AM (Chair): The other thing I was wondering about was health procurement and procurement around boroughs for energy, like Clinical Commissioning Groups (CCGs). Are there any opportunities there to expand the market that you are supplying?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I am not sure how.

Caroline Russell AM (Chair): I just wondered. The boroughs must be procuring energy. The CCGs must be procuring energy. Are there procurement opportunities that would allow Energy for Londoners to supply beyond the domestic market?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Not through the Energy for Londoners supply company. As I have said, that is directed to Londoners' residential homes. Separately, the work that we are doing on power purchase agreements with TfL and so on have lessons learned for some of those local authorities. We would be encouraging them to go down that route.

Leonie Cooper AM (Deputy Chair): I wanted to ask you about smart meters. When the Government first started talking about it, they were going to be rolled out to every single dwelling in the whole country by 2019/20. It was certainly a pledge that the Mayor made in his manifesto for the 2016 election that he would be supporting smart meters. I am not sure whether this is going to be something that Energy for Londoners was going to take on.

How is the rollout of smart meters going in London and what has the Mayor been able to do to do anything quickly on this? We do seem to have fallen terribly behind on this project.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): This is a national Government project, just to be absolutely clear, and it is the energy companies that are rolling out smart meters. We have raised consistently with the energy companies, Energy UK and the Government our concern that the smart meter programme has fallen way behind. It is picking up, but you will have seen probably in the press and at Select Committees and various other venues that the problem has been the older current meters, Smart Metering

Equipment Technical Specifications (SMETS) 1, moving to the new ones, SMETS 2. They are not interoperable.

The pace of rollout by the energy companies has been very poor. It is a similar one that we have seen in terms of energy efficiency where they prefer not to direct their investment in London. We have been trying to get some sort of collaboration with the energy companies to try to get them to move faster. We have offered to work with them and work on a pilot. I raised that with the Minister, Claire Perry [MP, Minister of State for Business, Energy and Industrial Strategy], when I met her a couple of weeks ago. They have not been hugely forthcoming and I do not want to be rolling out old meters to customers. We want to know that the SMETS 2 meters are going into London's homes.

Then we have the added problem where the meters do not work in flats and multi-rise buildings. We do not have a solution in London and so we are pushing back to the Government and saying, "We are willing to do this". The Mayor has, as you mentioned, made a commitment to do that. We have been working very hard to try to get those energy companies to work on it at a much more accelerated pace.

Those smart meters will help people manage their energy bills. They will also help us manage the energy supply so that we have something that is much more efficient.

Leonie Cooper AM (Deputy Chair): They will, absolutely. As we move to decentralisation and decarbonisation of the grid, we desperately need them to help with that management process. Perhaps you could write to us afterwards about this because we are a little bit short of time and about whether you have a handle on how far the rollout has proceeded now across London, conducted by the energy companies.

In fact, talking about decentralisation and decarbonisation of the grid, that leads me on to the next area I wanted to ask you about. How much decentralised generating capacity has London gained since the Mayor came in in 2016 and how much more is going to be needed by 2030?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We have done quite a lot of work through what we are able to do in London through the powers that we have. It is largely through the new development powers that we have, requiring the installation of solar and other renewable energy capacity on new developments. We have done some work through our Solar Together programme and the RE:FIT programme, which is putting installations of solar panels on schools, for example, and making sure that we see more of that rolled out. Through RE:FIT, we are working with a pipeline of projects including hospitals and other public-sector buildings.

Leonie Cooper AM (Deputy Chair): And the London Community Energy Fund as well, which has helped some community energy groups.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Yes. The London Community Energy Fund replaced a fund that the Government had --

Leonie Cooper AM (Deputy Chair): That the Government scrapped, yes.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): -- that was scrapped. In consultation with those community energy groups, we asked them what they needed. Was it capital funding? They were saying, "Actually, what we need is the funding to do the feasibility and the businesses cases". They are being phenomenally successful in crowdfunding and delivering.

What is unfortunate is that that growth in that sector is being stifled by the removal of the Feed-in Tariffs and the successor regime that the Government has been talking about. There is no transition. It ends in March [2019] and there is no date for when that comes in. People are really uncertain about where to go and what to do. Also, the successor scheme militates against smaller groups. It does not really help the decentralisation of the energy that we need in London.

I have the figures in here somewhere, but I cannot find them.

Leonie Cooper AM (Deputy Chair): Perhaps you could also send those over afterwards.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Yes.

Leonie Cooper AM (Deputy Chair): Assembly Member Russell just spoke about TfL and whether or not it could become a customer of Energy for Londoners. I understand that TfL's energy bill is huge for electricity: £200 million a year. Wow. I am glad I do not have to pay that. It seems to me that there is a lot of energy in the Tube. We have talked about taking the energy off at Bunhill. I thought that was going to be a precursor to taking energy off elsewhere.

Perhaps there are a few things that TfL could be doing to reduce energy bills. Quite often we see four empty escalators running up and down. It seems to me that TfL should perhaps be looking to, during the day when it is not the rush-hour, not run all the escalators empty up and down.

Also, TfL has an ability to generate and is going to be generating up to one megawatt of solar energy. That is the capacity for this year [2019], but the Mayor has a goal of 100 megawatts by 2030. Going from 1 to 100 is quite a gap. What is happening on that front?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): TfL has been assessing what is possible and what is feasible on the land and roofs. I understand the report is with TfL and they are just looking at that and checking its accuracy and so on. Then they are going to be looking at what is feasible. Many of those sites, many of those rooftops, in fact, that TfL has and that we have in London are not suitable for solar. They have to work out what is and then that will give the capacity. Then they have to model and do the business case assessments, just like the community energy groups were doing, to work out what is feasible.

TfL is working on installations. The Acton Railway Depot will provide that one megawatt during this year [2019]. The feasibility studies will then give us the basis of the next phases of projects that will contribute to that 100 megawatts, which is the Mayor's target for what he is able to facilitate through his programmes and through his functional bodies.

Leonie Cooper AM (Deputy Chair): In terms of the Solar Action Plan and in terms of marks out of 10, how far would you say that we have progressed? Would you say you would give us two out of ten or eight out of ten or are we somewhere in the middle?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I would say ten out of ten. We have a Solar Action Plan, which very few cities have. We have a direction of travel. We have funded community energy groups. We have a number of programmes that are delivering on rolling out and supporting people to roll out solar. We have our functional bodies looking at that. It takes time to assess TfL's estate in London. It is very complicated.

Leonie Cooper AM (Deputy Chair): I do agree. It would have been helpful if the previous Mayor [Boris Johnson], who had eight years to do some of these assessments, had been getting on with it, but he had actually got rid of most of the environmental staff at that time.

Finally, in this transition towards decarbonised and decentralised and, hopefully, cheaper energy, how are we going to be making sure that that is being delivered for those Londoners who need it the most?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The energy supply company that the Mayor is developing will help to do that because it will be an offer that is very competitive compared to the 'big six', not just in price but also in the service offer. We have made it very clear in the tender that we want people to come forward with innovative services that will enable people to take advantage of new approaches, whether it is smart meters, helping people moving to battery storage, electric vehicle charging. There are lots of other innovations that people are bringing forward, enabling some social justice outcomes, we hope, as well.

Leonie Cooper AM (Deputy Chair): In that case, you would then expect me to say that I am hoping it is going to be launched sooner rather than later --

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Sooner rather than later, yes.

Leonie Cooper AM (Deputy Chair): -- if it is going to be the vehicle by which we are delivering to the right people at the right time, but preferably as soon as possible.

David Kurten AM: We know the Mayor wants to reduce pollutants in the air and he particularly talks about particulate matter less than 2.5 microns in diameter (PM2.5s) and NO_x, nitrogen dioxide and nitrogen monoxide together. PM2.5s, I understand, meet the legal limits at the surface, but there is a big problem on the Underground. We have heard it is exceeding the limits by over ten times or 12 times in the Jubilee line, Northern line and so on, which is a big problem. NO_x levels still exceed the legal limits and have done in certain places in London.

What is the Mayor going to do about accelerating the reduction of NO_x in places where it still exceeds the limits and PM2.5s on the Underground?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Let us start with NO_x. We believe we will be in compliance in 2025. However, if the Mayor were to be given additional powers or if the Government were to take action, we believe that date could be brought forward. One of the key problems is that we have been focusing very much on where the Mayor is able to act, which is transport emissions, but non-transport emissions - for example, construction machinery and boilers in buildings, which emit a lot of NO_x - could be tackled if the Mayor were to be given more powers or if the Government were to mandate certain action. That is what we would like and we have been lobbying very hard for the Government to either take action itself or give us the powers to do that.

On PM2.5s, as you know, all of London is in breach of the limit. It will require a lot of action by the Government or, again, devolving powers to the Mayor to be able to take that action. Some of it is transboundary pollution, but for the pollution that we are able to control, again, we would seek the powers to be able to do that.

David Kurten AM: PM2.5s on the Underground are very high. What is he going to do about that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Mayor has already taken action. He has asked for a tunnel cleaning programme and work from TfL to look at that. TfL has commissioned research to look at what the effects are. That has been inconclusive, but the recommendations of that independent committee were to carry on monitoring, to provide some of the dust samples for further research and to carry on with the tunnel cleaning programme.

At the moment, I would just stress that this is something really that I would get TfL to respond to you on because they are better placed to talk about this than I am. The level of work that they are doing has been very good in that they are trying to understand the problem. Certainly from the independent report, they have not identified any solutions.

David Kurten AM: At the surface for PM2.5s, I understand the limit is 25 micrograms per cubic metre and it should not breach an average of that over the year. You said that all of London is in breach of that limit. What is the latest figure you have for London for PM2.5s?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): In terms of what level?

David Kurten AM: The annual average figure in micrograms per cubic metre.

Elliot Treharne (Policy and Programmes Manager - Air Quality): If I might jump in there, just to clarify one point, there is the legal limit, which is 25 micrograms, which London does meet. Shirley was --

David Kurten AM: It meets the legal limit? That is not what you said earlier.

Elliot Treharne (Head of Air Quality): Yes. Sorry, Shirley was referring to the World Health Organisation (WHO) recommended guidelines.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Which the Mayor has adopted and the Government has --

David Kurten AM: What is that figure?

Elliot Treharne (Head of Air Quality): That is ten micrograms.

David Kurten AM: That is ten and so that is a lot lower. I did ask you. I did say it met the legal limit and you said it did not. It does meet the legal limit but does not meet a lower target, which you have put in.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I misspoke. It does meet the legal limit, but the Mayor has adopted the WHO health-based guidelines of ten micrograms by 2030, which we do not meet. That WHO target the Government itself has been talking about adopting as well. The direction of travel is very much towards ten micrograms because there is no safe, as I understand it, limit for PM2.5s.

David Kurten AM: When we talk about these limits, the levels on the Underground are far higher than at the surface. Is the priority going to be to reduce the levels on the Underground, which are much higher than at the surface?

Elliot Treharne (Head of Air Quality): If you do not mind, if I can jump in, the composition of what is underground is potentially different to what is aboveground. When you think about what is happening above ground, you have a lot of sources like, for example, diesel combustion, which you do not have underground.

This is part of the reason why TfL asked the Committee on the Medical Effects of Air Pollutants (COMEAP) to look at the issue. As Shirley was explaining, the core recommendation was that much more work and analysis is needed. The report did highlight that it was advisable and that TfL should continue to do the work that Shirley set out in terms of trying to reduce those levels through the cleaning programme and other interventions.

David Kurten AM: Do you want to reduce PM2.5 levels on the Underground to ten micrograms per cubic metre? Is that your aim?

Elliot Treharne (Head of Air Quality): You do need to be a bit cautious at this point until we have a better understanding, as recommended by COMEAP, about some of those impacts. It is not necessarily clear at this stage if we can do a direct comparison between ambient outdoor air quality and what is underground.

David Kurten AM: I can see that you are not giving straight “yes” as an answer and so I will move on. For NOx emissions, I understand the legal limit is 40 micrograms per cubic metre in a 24-hour period average and that should not be exceeded more than 35 times per year.

Is that being breached all over London or is it in certain specific areas that you are targeting? I know you mentioned the clean bus corridors and they are having an impact. What areas of London are still big problems for breaching that specific target on NOx?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It is predominantly near roads because the main source is from diesel vehicles. Whilst we have a lot of those diesel vehicles, we will have that problem across London. Where there are more vehicles concentrated, the impact will be higher, which is why we are taking a systemic approach across London. That includes the implementation of the ULEZ starting on 8 April [2019], in conjunction with the measures we are able to take through the Mayor’s powers in terms of cleaning up the bus fleet and cleaning up the taxi fleet.

David Kurten AM: You talk about the taxi fleet and I know that new taxis that are licensed have to be ZEC.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): From last year [2018].

David Kurten AM: Yes, from last year, from the beginning of 2018, but that is not the case with private hire vehicles (PHVs) and that is not the case with these new on-demand bus services. They are still being allowed to have new Euro 6 diesels. Why is there an inconsistency between what you are doing with taxis and what you are doing with the PHV fleet?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The agreement to move to ZEC taxis was agreed under the previous administration. We believe that we need to carry that on because taxis, especially black taxis, are very heavily polluting, particularly Euro 5s --

David Kurten AM: You are not even allowing Euro 6s to continue.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I will get Elliot [Treharne] to come in and talk a little bit about the difference between Euro 5 and Euro 6, but the point I want to make is that the fleet is very polluting and so we need to clean up that fleet. It was not being cleaned up as fast as the commitment had been made, and so we have said that we will be consulting on reducing the age limit that taxis have from 15 to 12 years. We have restructured the delicensing fund and have seen very many taxi drivers applying for grants to scrap or delicense their vehicles, and so that is now having an effect. The target

that we have to meet has been adopted by the Government and so it is in the Government's national air quality plan as well as in the Mayor's air quality plan to reduce those emissions. We have to be tackling that source of emissions.

David Kurten AM: I do see what you are saying, and I hear your answer, but you did not answer me about the Euro 6s. No new Euro 6 taxis can be licensed, but you are continuing to allow diesel Euro 6 PHVs to be licensed. This is something the Mayor could not give an answer about earlier in the week. If you had all done your homework, you would have an answer to that. Why is there a discrepancy there? Why are you continuing to allow PHVs to have Euro 6 diesels but not taxi vehicles?

Leonie Cooper AM (Deputy Chair): The Mayor does not have the power to stop them, David. It is not through our choice --

David Kurten AM: I was asking the panel here.

Leonie Cooper AM (Deputy Chair): You know the answer to that.

David Kurten AM: I am not sure if I am going to get an answer - and I have other people in, too - from anybody.

Elliot Treharne (Head of Air Quality): The key thing to remember is that the approach that has been adopted for taxis reflects the way that they are licensed fleets and are licensed by the Mayor.

David Kurten AM: So are PHVs.

Elliot Treharne (Head of Air Quality): There have been different opportunities, given the differences between PHVs and the taxi fleet, to do something very exciting with the taxi fleet, which is to encourage the uptake of ZEC taxis. For PHVs, which are a different fleet and operate in a different way across London with greater use potentially out in suburban London and outer London, we are still building towards that ZEC requirement but in designing the policy there was a decision to reflect the different circumstances of the different trades.

David Kurten AM: That was the Mayor's decision?

Elliot Treharne (Head of Air Quality): As Shirley has explained, it was the previous administration.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It was the previous Mayor's [Boris Johnson] decision to move to ZEC taxis.

David Kurten AM: The current Mayor has been the Mayor for three years. He has not changed the policy in three years?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): No, because it is the ambition, as we talked about before, to move to a zero-carbon city, and so they are set out --

David Kurten AM: You are not doing that for PHVs.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We are because there is a requirement by 2023 that new PHVs will have to be ZEC and then 2033 --

Elliot Treharne (Head of Air Quality): Yes, 2033 for both fleets. If you look again, you do have different age limits in place for both PHVs and for taxis because, again, that reflects the different economics and different circumstances of the trade. In terms of the end point, as set out in the Strategy, by 2033 both fleets are expected to be fully ZEC.

David Kurten AM: Finally we are getting to some sort of rationale for that. For the next five years, it is going to hurt taxi drivers and it is going to introduce unfair competition, but we do have a rationale for that and so thank you for your answer there.

You did mention also in your opening statement rapid charging points. One of the things you said the Mayor has done is to introduce rapid charging points for these ZEC taxis. You said there were 750. Is that right?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): No, over 160 rapid chargers since the Mayor was elected.

David Kurten AM: Fine. That is not enough for the ZEC taxis that there are and they are rapidly increasing in number. What is the Mayor going to do to make sure that there are enough so that people who do take up one of these ZEC taxis are not queuing and can charge their taxis.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): There are over 60 - I think 64 - taxi dedicated rapid chargers in London. There are about 1,000 ZEC taxis in London. There is more than sufficient capacity to be dealing with the current fleet.

David Kurten AM: He wants 9,000. That is his plan. He says he wants 9,000 by 2020, which is only a few months away, and so that is not going to be enough at that point.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): That was the previous Mayor's [Boris Johnson] target. The target we are working to is a 45% emissions reduction from the taxi fleet. It is now a 65% reduction that the Government and we are working to. It does mean many more taxis moving to being ZEC and the delicensing fund will help us do that and help them do that.

I am chairing an Electric Vehicle Infrastructure Delivery Group, working with TfL, the boroughs, the industry and many stakeholders including Shell, UK Power Networks (UKPN) and others to understand the needs in terms of electric vehicle infrastructure, both rapid and standard chargers, over the next few years. We will be reporting on that shortly and that will give you an indication of the number we need, but the Mayor has a target to introduce 300 rapid chargers by 2020.

David Kurten AM: Is that going to be enough for 9,000 taxis?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The report will set that out because we are looking at that. That point that that figure is set at seems sufficient.

David Kurten AM: You will know when the report comes out. That seems to be what you are saying.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The report will be out shortly and so I can let you know then because we are confirming the details at the moment. The 300 at the moment are thought to be sufficient to deal with the rapid charging infrastructure that is needed in London rolling out to 2020.

David Kurten AM: You are saying 300 will be enough for 9,000 taxis?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): I am saying that the report that we are issuing shortly, which will have input from electric vehicle charging companies, from UKPN, from the boroughs and from TfL will give you a more definitive number.

Elliot Treharne (Head of Air Quality): Do not forget you can charge these taxis overnight at home and there is a whole range of different circumstances and ways that people use their vehicles. There does need to be the right amount of infrastructure and, as Shirley was explaining, that work is underway. At the same time, you have to think that it is not necessarily going to be all of those, however many ZEC taxis there are, in central London having to use that charging infrastructure continuously.

David Kurten AM: Taxi drivers do charge up when they are at home, but they do need to charge up in the day if they are driving around a lot.

Elliot Treharne (Head of Air Quality): Yes, but that is not necessarily --

David Kurten AM: You need enough for all of them to be able to charge in the day. I will just ask you about the ULEZ that is coming in in April [2019], very soon. How is that progressing and what problems have come up as you have been trying to implement that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It is progressing very well. We are on track to launch on 8 April [2019]. We have, as you know, launched a scrappage scheme for microbusinesses and charities because the Government has not heeded our ask. We have done lots of communication. We have had an eight-month awareness-raising campaign. We have been sending emails to anybody on the TfL and Auto Pay databases. We have used the Driver and Vehicle Licensing Agency for help to write to about 250,000 vehicles that were seen in the area to be non-compliant. You will have seen the advertising campaigns that are running at the moment. We have vehicle checker allowing people to check vehicles. Over 2.5 million people have used that checker to make sure they are compliant. There is lots of information out there and awareness is good.

David Kurten AM: You said about 250,000 vehicles will be affected by that. Is that the number of vehicles you expect will be having to pay the charge?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): These were people who were seen and so, if they change their behaviour, they will not have to pay a charge.

David Kurten AM: One of the big problems is that businesses may be affected. You did mention that you are going to help microbusinesses perhaps with the diesel scrappage scheme. How do you define a microbusiness?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): A microbusiness is one that has fewer than ten employees and turnover is something in the order of £600,000 a year.

David Kurten AM: Will you be providing enough money for them to purchase new vehicles in their entirety that are ULEZ-compliant?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): There is a fund. The scrappage amounts are there to contribute towards the purchase of a vehicle. What they choose, whether a new or second-hand vehicle, would be -- in fact, they could join a car club or a van-sharing club.

David Kurten AM: Businesses that need to drive in and out all day, perhaps, with service vehicles, delivery vehicles, etc, would not want to use a car club. I am talking about small and medium-sized businesses, but I do --

Caroline Russell AM (Chair): Sorry, Assembly Member Kurten. Can I just interrupt for a moment? Zipcar was talking just the other day about small businesses that need a van for only one particular journey in the day - like to go and pick up flowers from the market if it is a flower stall - are moving away from having their own van with all the problems of parking it and are using a car club van just for the journeys that need.

David Kurten AM: That might be true for some, but it is not true for all businesses because there are businesses that need to drive in and drive around a lot. They are going to be hurt significantly. How much money is going to be available to each business if they use your offer.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): There are two levels. Do you have the details there?

Elliot Treharne (Head of Air Quality): Basically, there is an option to support people who would like to switch to an electric van and that has £6,000 of funding available to it, which includes a contribution potentially both towards the cost of the vehicle and also towards the running costs of that vehicle, and that is all provided as an upfront amount.

There is also then a £3,500 payment if someone wants to scrap a vehicle, which can be used more flexibly. Either it can be used in order to get a compliant van or, alternatively, as was explained, a lot of businesses have differing circumstances and we want it to be as flexible as possible to accommodate as many of those as it could, which is why it can be used, for example, as part of a van-sharing scheme or to help a business in another way in terms of its administrative and running costs.

David Kurten AM: That might go some way to compensating microbusinesses, but not all of the way. If you have a medium-sized business that bought a whole new fleet of Euro 6 or Euro 5 diesels in 2015 or 2016, it is going to be in severe trouble. What are you going to do for those businesses?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): They have had ample notice.

Leonie Cooper AM (Deputy Chair): They knew about the ULEZ from 2015 and so why would you go out and buy it --

David Kurten AM: It has been implemented a year before it was supposed to be implemented.

Leonie Cooper AM (Deputy Chair): No, it has not.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Mayor signalled when he was elected on his manifesto and there have been three consultations and lots of publicity. Actually, what we have seen is very many businesses moving to cleaner vehicles or electric vehicles. I have visited a number of businesses that have looked at rerouting and looking at more efficient logistics in order to comply because

they recognise the health implications both for their customers and for their drivers of people driving around in dirty diesels. I am encouraged that businesses want to do this and are stepping up to do this.

What the Mayor has done is to make available some funding for those who might be particularly affected. We have asked the Government to match that funding. We are still waiting to see that. The Clean Air Summit that he hosted showed that it is not just the London Mayor but these zones are going in across the country and other cities are looking for support from the Government for scrappage schemes as well.

They also recognise that this is an important health issue. The impacts on the health of children and the very elderly is pernicious and a huge cost to society and the National Health Service. Businesses recognise that this is a social justice issue and they want to contribute.

David Kurten AM: It goes back to what we talked about before with NOx levels, which are under the legal limit, and we have nitrogen dioxide levels coming down. That is a good thing. I need to move on to talk about --

Caroline Russell AM (Chair): David, if I can just remind you about the time, if you can be --

David Kurten AM: Yes. I am going to move on. One thing I have mentioned before in these meetings is the school run and the emissions and pollution that comes from vehicles when people drive in large numbers outside schools. What is the Mayor doing at the moment to help reduce pollution exposure for children and around schools?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We have done a number of things. For example, I alluded to the school audits. This was identifying 50 schools in the worst polluted areas and carrying out audits so that we could compile some specific options for actions around those schools. The types of measures that would go in were compiled into a toolkit that any school can use, whether they are in London or outside of London. That has a series of measures from greening their schools to layout changes and looking at road interventions. Also, we have funded some money to help those 50 schools to go forward with some specific recommendations that they choose to take forward.

We have provided funding through the TfL Local Implementation Plan programme, which is funding for the boroughs so that they are able to take forward those audits or do their own measures. We have the schools programme that TfL runs called STARS [Sustainable Travel: Active, Responsible, Safe], which talks about how you might walk to school or scoot to school in a safer way, reducing children's exposure. We are conducting a number of trials of wearable monitors and so on to give better information. We are issuing alerts to schools.

Ultimately, the thing that is going to make the biggest difference is the implementation of the ULEZ. People talk about, "Clean up the bus fleet. Clean up the taxi fleet. We do not need to do anything more". It is not enough. We have to do the ULEZ because that will bring down the emissions. Over 450 schools are in areas of toxic pollution. That will be brought down to zero in 2025 and four in 2020.

I talked about the health implications to those children. These are not just one-off implications. These are for life. They are missing school. They are missing out on social activities. Their parents are having to pay for inhalers. This is wrong. People understand that it is wrong and so they are very supportive of measures like the ULEZ coming in.

David Kurten AM: I need to move on. We are leaving the European Union (EU) on 29 March [2019], provided people do not scupper that. What are the changes when we leave the EU? Will that make any change to the plans to bring down PM2.5s and NOx or not at all?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The Government has said that there will be no regression from the environmental standards that the EU has set and that have been transposed into UK legislation. We are looking for the Environment Bill that is going through Parliament at the moment to incorporate that non-regression commitment and to maintain the environmental principles that have been at the heart of the improvement of the UK environment over the past years, a phenomenal improvement in water in particular.

On air quality, we are insistent that the ability for citizens to have recourse to the European Court of Justice is replicated in the UK if and when we leave the EU and that we have an independent watchdog that is independently staffed, has an independent budget and is able to hold the Government to account, so that people could take cases to court and the court would have the ability to fine the UK Government. That ability that Client Earth used has really forced the pace and forced the hand of the Government to produce the Air Quality Strategy that we are now trying to implement. We are still way behind where we need to be because there are still many provisions that need to be enacted, and I have talked about some of the ones that the Mayor would like devolved to him to be able to deal with sources of emissions that he does not have powers over. That would make a huge difference to people's lives and people's health.

David Kurten AM: Thank you.

Shaun Bailey AM: It seemed earlier on, Shirley, that you said that we did not understand the impacts of the poor air quality in the Tube system. Am I correct? On the particulate matter, you said we still have to look at what those impacts are.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): COMEAP, which looked at that, said that the current research and evidence was inconclusive and asked for further monitoring to be done.

Shaun Bailey AM: They are suggesting the impact of that air is different underground than it is above ground?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): They are saying that they do not know yet and they need further research work to understand what the differences and impacts are underground as above ground.

Shaun Bailey AM: I find it quite surprising that if you are underground and you breathe air it has a different impact to breathing air above ground.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Elliot [Treharne] pointed to the different sources and the different concentrations. These are medical experts. I am not a medical expert and I do not think you are.

Shaun Bailey AM: Shirley, I am just having you clear that up for me. Again, I am genuinely surprised that if we have the same particulate matter above and below ground, it will apparently have a different impact. I am just genuinely surprised. I am not trying to be difficult.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We can send you a link to the report. Perhaps that might help.

Shaun Bailey AM: Yes, that would be great. I am genuinely surprised about that. Another thing about charging systems, quickly. One of the things that strikes me about electric cars and charging is that there are so many different plug standards and providers and deliverers. What are we doing to mitigate what could be, quite frankly, a mess of providers and different plug types and the like?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Again, this is something that the Government could help with. The interoperability is something that the Mayor raised when the Automated and Electric Vehicles Bill was making its way through Parliament. It is now an Act. The Government's Office for Low Emission Vehicles (OLEV) is looking at trying to set those standards. It is something that we have raised. There are also things like people's ability to use contactless or just ordinary credit cards to pay rather than having membership cards. These are all things that we are looking at in the report that I alluded to earlier and that we will be reporting to shortly. These are some things that we are able to do on a voluntary basis to try to encourage operators. The framework that we have in London encourages the operators we are using to do that, but we cannot mandate that. It is something that the Government could do and should do.

Shaun Bailey AM: I would probably agree with that. Lastly - and, Elliot, maybe you are better placed to answer this - we talked about small businesses and the impact that the ULEZ, etc, will have on them. I want to zero in specifically on replacing vehicles with electric vehicles. Do those models exist and what sort of price do they cost? What does a small electric van cost?

Elliot Treharne (Head of Air Quality): Yes, the models do exist. You have to bear in mind the availability. In addition to the funding that we have announced, there is also national funding from the OLEV, which can provide up to £8,000 of funding as well. When you take that into account and combine those amounts of funding, potentially you do have a way of bringing the cost of a new vehicle down quite considerably. You can get electric vans for anything from, including some of those discounts, about £18,000 to £20,000.

Shaun Bailey AM: Including the discounts?

Elliot Treharne (Head of Air Quality): Not all of our discounts, not including the Mayor's scheme, but including the OLEV grant that is available.

Shaun Bailey AM: What is the availability? I spoke to someone who runs a small business who said that if she makes the jump she wants to do it once and so she will go straight to electric, but she said that you go through the shiny catalogue and you can get these things but there is a huge waiting list because they are replacing their fleet customers first. Have you come across that problem?

Elliot Treharne (Head of Air Quality): We have had similar conversations with the industry to try to understand availability of electric models. There is definitely a longer lead-in time than you have for other types of vehicles and that is why TfL is trying to consider the best way, if a business is committing to switch to an electric vehicle, to make sure that there is flexibility for them to do so and that they are not penalised as they wait for a vehicle to be delivered to them.

Shaun Bailey AM: Are you saying that if a business can demonstrate that it is on the waiting list, has paid the deposit or whatever the parameters are, they would not suffer a penalty financially?

Elliot Treharne (Head of Air Quality): If you would not mind, I am going to have to double-check that with TfL. I would not want to accidentally tell you something wrong and so I will write to you with the precise details on that.

Shaun Bailey AM: I appreciate that. Shirley, how is the Mayor progressing with his pledge to increase green cover and tree cover and to promote green infrastructure across London?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Very well. I alluded in the opening remarks to the funding and the number of projects that we have been implementing in terms of green space projects as well as tree-planting projects. We have included in the new London Plan continuing protections for our open spaces and in fact going further with incorporating a new Urban Greening Factor, which will help incorporate green infrastructure into new developments, which did not happen before.

We have also been working with the community through the National Park City Foundation's concept of a National Park City to get people more engaged and more involved in the greening of their city. The response has been phenomenal, which is why we are hosting another National Park City Week but this time it is a National Park City Festival in July [2019]. I hope you will come to that. There is funding available for people who want to host events and that is open until 15 March [2019]. There are two levels of grants: small grants just to help you come up with something in your neighbourhood that you want to do, whether a little festival of your own or a clean-up campaign or planting some trees. That is all available. We are engaging lots of Londoners in that process.

Shaun Bailey AM: Just two things. You talked about the National Park City. The idea was to go from 47%, I believe, green cover to 50%. How are we doing with that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We have looked at that baseline again because that was an estimate. We have conducted aerial imagery and produced a much more definitive baseline now. If you have seen them on our website, there are some links to very high-resolution maps of greening in London. Now the estimate is something in the order of 48% to 51% green. There is a range there. That does not mean to say that we have met that 50% target already. It means that we now have a more definitive baseline.

We will monitor that. Now that we have that definitive resolution, it is much easier to monitor what the changes are that will happen through our greening programmes and through what development brings in through the London Plan as well.

Shaun Bailey AM: Firstly, I would love those links, if you could send them to me.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Yes, I will.

Shaun Bailey AM: That means, under the current definition, we may have started above the 50% that we were aiming for.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Yes, but what we will do is just rebase. It does not mean we are just going to stop there. We want London to be even greener.

Shaun Bailey AM: How are we doing? You made the comment earlier on about the tree-planting figures, etc, and what has been done, but is that a net gain? Are these net figures? Are we looking at tree loss? Are we

adding that into the calculations we are making? Also, how are we guaranteeing that the seeds and the small trees that are being sent out are actually being planted?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Maybe I will let Andrew answer that, but we do incorporate. It is net, yes.

Andrew Jones (Policy & Programme Manager – Green Infrastructure): Some of those figures are net. It is much more difficult to monitor tree loss than it is to count the number of trees we have planted. The figures we are quoting are the ones we have directly funded and we know what the Mayor's money has gone into.

We do have net figures for, say, what is happening on the TfL Road Network (TLRN). At the moment we know that since 2016 there has been a net increase of 1,400 trees on the TLRN. That is where we do have a good understanding of specific numbers where there is a net loss.

The other thing is that also, alongside the new work we have done on green cover, we have done some work on tree cover and understanding what the current status of tree cover is in London better than we have with previous estimates. That will be repeated every five years and will be a means of monitoring how well we are doing against the targets we have set in terms of increasing tree cover.

Shaun Bailey AM: There is this inconsistency. I do accept that it is hard to track tree loss because who comes to tell you that a tree has fallen down for whatever reason? I accept that. However, it is hard to understand if we are moving forward.

Andrew Jones (Policy & Programme Manager – Green Infrastructure): Yes, and that is why we have put in place this new monitoring method using aerial imagery that we will repeat every five years and that will give us an understanding of whether there is a net increase in trees through what we have been doing through the planting schemes relative to what is being felled across London.

Shaun Bailey AM: Fair enough. That makes sense. Do we know what the biggest factor in our tree loss is? Where I live, to my mind - this might be slightly geeky - it looks like it is ivy growth. It seems to attack particularly large trees and we lose those trees and of course they are the most impactful trees, particularly from an air quality point of view.

Andrew Jones (Policy & Programme Manager – Green Infrastructure): I would not want to speculate on what the main cause of tree loss is. There are trees that die naturally through old age. There are trees that are dying through tree disease. There are people felling trees for whatever reason. Some tree felling is actually good management for some spaces. You might take out trees because the area you are removing the trees from has a high biodiversity value that would be greater without those trees because it is a chalk grassland and that is better for wildlife. There is not any one particular factor in terms of why we are --

Shaun Bailey AM: Can you see my point as to why we are losing trees might be important? You might wake up in five years' time and you have gained trees and lost trees, but if you have lost them you are going to need to know how so that you can address that.

Andrew Jones (Policy & Programme Manager – Green Infrastructure): Yes. That is why, as I said, we have put in the monitoring methods that will enable us to understand what trees --

Shaun Bailey AM: Yes, but the monitoring methods, I am suggesting, will tell you how many trees you have lost but not why.

Andrew Jones (Policy & Programme Manager – Green Infrastructure): That is true, yes.

Shaun Bailey AM: My point is that it might be useful to know why you have lost those trees, but let us not labour the point.

What progress has been made in the Green Grid for London? People talk about this Green Grid. What progress has been made around the development of that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): In terms of developing it?

Shaun Bailey AM: Yes.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Through the protection policies we have set in the London Plan, we have policies and protections for the Green Belt, for Metropolitan Open Land and so on. We have that Green Grid. The All-London Green Grid Supplementary Planning Guidance is going to be revised and can only be revised after the new London Plan has been adopted, which will be in the spring next year [2020]. The support for that is through maintaining our planning policies and ensuring that planning applications have regard to that both at the mayoral level and at the local authority level. Then some of the funding programmes that we have for green spaces and woodlands so on are there available to support that Green Grid.

Shaun Bailey AM: Thank you. What progress has the Green Infrastructure Commission made? Has it been beneficial? Where are they now? Where are we with that?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): The first meeting is going to be in April [2019]. We have taken a little bit longer to recruit the commissioners. We have had to go for two rounds to make sure that we have the right spread of skills across the Commission. The first Commission meeting I am going to be chairing and the Deputy Chair is Councillor Julian Bell, the Leader of Ealing [Council]. We have a number of representatives on that body. It is time-limited. It is a year long. It is probably slightly more compressed because it has started a bit later.

Shaun Bailey AM: What do you hope to be the outcome of the Commission itself?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Parks, as you know, are not a statutory service for local authorities. We have talked about local authority cuts. We have very good examples of local authorities that have good parks services and parks management services that they have been able to protect, and there are others that are not so good. Part of the objectives of this is to look at that best practice and also to come up with new funding models. Whilst we will advocate for further funding through the Comprehensive Spending Review, as will the local authorities, we know that there are still pressures. What are the new funding models that would allow parks to be really well managed yet recognise the competing objectives for those parks from leisure to biodiversity, space for flood resilience and so on? How do you help fund that?

Andrew Jones (Policy & Programme Manager – Green Infrastructure): I was going to add that we are looking at pilot projects and we are part of a consortium that has put in a bid for some funding through the Heritage Lottery Fund and the National Trust to support a pilot project with Camden and Islington. That application is currently in and that will be a project developed with the public health teams in those boroughs

and the Green Spaces Team to look at how they work together as a means to secure greater investment in parks. Hopefully there will be learning from that type of pilot that the Commission can understand and promote as a means to manage parks in the future in other boroughs.

Shaun Bailey AM: Thank you. Just to change tack slightly, this Committee is full of good recommendations. I am sure you will agree. One of our recommendations was to explore a website to give information about green spaces and to help the public understand how they can access and support those green spaces with things like crowdfunding functions, etc.

How far are we with that? Have you given it much consideration? Is it still on your to-do list?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): There has been some work on that. I am trying to find the right page. There has been a number of organisations from the GLA, the Campaign to Protect Rural England (CPRE) and others coming together and looking to see how that might work in a way that is cost-efficient but also enables all the information that we have to share in that. The thinking is that we create a portal rather than another website where all that information could be lodged. We are looking to bid for funding from the Bridge House Trust.

Andrew Jones (Policy & Programme Manager – Green Infrastructure): One of the things that was said in the response to your report, *Park Life*, was that there have been previous attempts to create these web-based things and the challenge is in terms of how to keep them up-to-date and the resource and effort required for that. CPRE London, the National Park City Foundation, Greenspace Information for Greater London, Parks for London and the London Parks & Gardens Trust and ourselves have come together to try to get this consortium and make a bid to revive some of the work that was previously done but come up with a more sustainable model for how these data systems can be maintained in the future. That would be maintained by individual organisations rather than one body being responsible for it and having to find the resources to do that. That is where we are at.

Shaun Bailey AM: That sounds good. It sounds like it is a work in progress. It is being looked at. My final area is two quite separate things, but one little personal campaign of mine is around biodiversity. What are we doing to support biodiversity in London? We have lots of wildlife in London, but it seems to me that we are not guarding that and not managing that properly. I wonder if there is more we could do to increase our biodiversity.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We have to start with the policy protections. In the London Plan again and in the Environment Strategy we have set out the policies to do that. Then, alongside that are the programmes that we have. The Greener City Fund, a £12 million fund that the Mayor has set aside, will enable through that supporting biodiversity projects. A number of the green space projects, for example, incorporate features that will support biodiversity and protect biodiversity.

There is information work that we are doing through the National Park City Festival, for example. How might we raise the profile of supporting biodiversity? We work with a number of organisations that have that as their primary purpose.

There is lots of stuff that we are doing. Any suggestions or anything that you are particularly worried about I am happy to hear about.

Shaun Bailey AM: My last and very final piece: what are City Hall and the Mayor doing to support councils to deliver green space, to manage it, anything in this arena? Is there anything in particular we are doing to support councils?

Shirley Rodrigues (Deputy Mayor for Environment and Energy): Again, there is the funding initially. We are funding six large green spaces, one, for example, out at Beckenham Place Park, which is helping local authorities with funding that helps to pump-prime other funding so that they are able to really improve some of those bigger areas.

We have funding available to create some new urban woodlands and we sent out an expression of interest last year [2018]. We have had a number of applications that we have whittled down to about two. We are just taking that through the process. That will create new urban woodland.

Through the work that Andrew [Jones] and his team does, working with many of those other organisations, we provide a lot of advice and information. In a number of the local authority areas staffing has been decimated over the years and so, really, that is a support and advice group to help people manage their green spaces and open spaces better.

Then the funding that we have made available is also available to community groups. As you will know yourself, the passion they bring to this agenda is phenomenal. Really, it is making available funding for them to take forward the projects they want to see. We see very many schools' greening projects and little community projects when people have areas that are very dear to them that they want to improve. We have provided funding in several rounds now and we have a few more rounds to go. We will be opening up some of the green space grants and tree-planting later this year [2019].

Andrew Jones (Policy & Programme Manager – Green Infrastructure): Yes, there will be more tree-planting grants and green space grants. Some of the community green space projects are on borough-owned land but are being applied for by local communities. Just to add to Shirley's points, some of the money we gave through the mass tree-planting was creating woodlands on local authority sites and so that was helping improve the quality of those green spaces. The Green Spaces Commission, again, is a vehicle that will ultimately help boroughs, hopefully, have a much more significant impact in terms of how they may be able to resource their management of space in the future.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): We are applying to some tree funding as well from the national Government. Part of the approach is to try to get a London-wide approach so that the boroughs do not have to individually apply and go through the process, because of the resource constraints, to try to get a London pot that they would be able to use rather than having to make lots of different applications.

Andrew Jones (Policy & Programme Manager – Green Infrastructure): Defra made a commitment to £10 million for tree funding in England and we are trying to get London's fair share of that money and support for more street tree planting.

Caroline Russell AM (Chair): Thank you, Shirley. That was a marathon session.

Shirley Rodrigues (Deputy Mayor for Environment and Energy): It was not quite [the Rt Hon] Theresa May [MP, Prime Minister].

Caroline Russell AM (Chair): Thank you to all of the officers who have been with you.

