

Environment Committee – 13 July 2016

Transcript of Item 5 – Air Pollution in London

Leonie Cooper (Chair): That brings us on fairly swiftly to our main item of business, which is going to be the discussion of air pollution in London. Obviously this is a critical issue for the Mayor, who has, I am sure everyone knows, just made a speech about this on the 60th anniversary of the Clean Air Act. There has also been a huge amount of discussion and we are really looking forward to having an interesting afternoon with yourselves discussing what you think might be the best ways forward to deal with this.

We want to ask you a variety of things, which are probably going to range over all the topics that you could expect. I want to start by asking about - and I am going to direct this first of all to Greater London Authority (GLA)/Transport for London (TfL) staff - the announcement of the Toxicity Charge (T-Charge), which is something that the Mayor has spoken out about a couple of times now. Perhaps we could start with Elliot [Treharne], or whoever is most appropriate to explain - or it could be you, Alex [Williams], actually - about how the proposal stands at the moment, to give us the details and how you think that this might improve air pollution from the implementation of the T-Charge.

Elliot Treharne (Air Quality Manager, GLA): A bit of context: when the Mayor was elected and came in we were given very clear instructions that he wanted to make a significant announcement on air quality very quickly. We worked with his team to pull together what we thought would be a comprehensive package of measures which would accelerate the improvements to air quality in London. As you are aware the T-Charge is one of those proposals and the proposal is for that to be introduced in 2017. The idea behind the T-Charge, which obviously will be in the central London Congestion Charge zone, in congestion charging hours between 7am to 6pm, was to basically send a signal to Londoners about the Mayor's determination to tackle the issue, but also how important it is for Londoners to consider what type of vehicle they may use. It is an important first step towards the second package of measures that the Mayor announced, which was around the Ultra Low Emission Zone (ULEZ), first of all bringing that forward and then also looking at expanding the size of the zone.

A Euro 4 standard is what will be used, but in effect we will be using an age proxy from 2005. Any vehicle before 2005 will be in scope for the T-Charge. What that does is target the oldest most polluting vehicles and puts us on the path to tackling London's pollution problem.

Leonie Cooper (Chair): On the path but not all of the way there though, do you not think that is a bit of a blunt instrument just choosing 2005 as that just targets old vehicles, it does not target specific pollutants?

Elliot Treharne (Air Quality Manager, GLA): In terms of using 2005, the Mayor had to take into account a number of different factors when deciding how he was going to tackle air pollution. Obviously he is trying to introduce something as soon as possible, so next year is a very ambitious timetable. If you look at what previously happened when we talked about introducing the ULEZ under the previous Mayor, there had been, in effect, a five-year period for people to basically meet the standards of the new ULEZ. The Mayor was mindful that as he introduced a T-Charge as soon as possible to take action, he needed to do that in a way which would affect a smaller number of vehicles, while still giving a very clear signal overall to Londoners about the direction. That is why it is important when we look at this package, not just to look at one element like the T-Charge but to look at it all together. As I was saying, there is the T-Charge but then the ULEZ which is also

potentially being brought forward or being made larger, and then there is a whole significant package of measures to do with TfL's bus fleet. It is that package, together, which delivers the improvement in air quality that the Mayor wants to deliver.

Leonie Cooper (Chair): We are going to come on to talk about the ULEZ and also buses and other aspects of air quality, but just keeping the focus on the proposals around the T-Charge just for now, bringing it in that quickly, what do you think might be the economic impacts on London and Londoners?

Elliot Treharne (Air Quality Manager, GLA): The Mayor has been very clear about how he wants to introduce both the T-Charge and the ULEZ. As part of the announcement he said that he would be working with Government to develop a proposal for a diesel scrappage scheme. He recognises the potential economic impacts from putting in place emissions charges and, as a result, we need to work as strongly as we can with the Government to address the consequences of dieselisation, which is the reason why we have so many of these more polluting vehicles today. One of the things that the Mayor has asked TfL to do, and Alex [Williams] may want to talk more about this, is to actually start work on a proposal for a diesel scrappage scheme and then for that to work with Government to make sure that is put in place to help manage some of the economic impacts from either the T-Charge or, more significantly later the ULEZ.

Leonie Cooper (Chair): You are definitely clear that the introduction of the T-Charge will have a positive impact on air quality?

Elliot Treharne (Air Quality Manager, GLA): Yes. In terms of the timescales you will appreciate it has been very quick in terms of getting out a full consultation in eight weeks, developing a full package of different measures. We have done some initial calculations around what we believe the impact of the measures will be both individually and as a package. Obviously at this stage they do come with a little bit of a health warning in that those numbers will be improved as we do more detailed modelling and analysis, and then also move from emissions modelling into concentrations modelling. The rough effect that we expect the T-Charge to have is a 4% reduction in car-based nitrogen oxide (NO_x) emissions in the central area, which is quite significant in terms of what we hope to achieve next year.

Tony Devenish AM: I welcome very much what you are doing as an overall concept and the way you are pushing forward with it, so thank you for the work that you are doing. However, as we know, and I know my colleagues Simon Birkett knows this particularly, modelling is all in these schemes, so could you tell us what modelling you have actually done to date and the estimates of the impacts that come from that modelling, and is the modelling publically available please?

Elliot Treharne (Air Quality Manager, GLA): In terms of the way that we model first is we have a number of different levels of modelling technique that you can actually use, which of course give you more information. What you want to get is a good understanding of in the then is around the impact that emissions have on concentrations, and then you obviously want to understand the impact, the relationship, between concentrations and health. While you will appreciate that that is quite a complicated, time-consuming process, in the eight weeks that we have had we have not had the ability to complete that process, which has been reflected in the way we have structured the consultation process. We started with this initial high level consultation and then in autumn 2016 we will move into a much more detailed policy consultation where we will have all that detailed modelling and we will be making that publically available and that will start to inform the more legal and statutory stages of consultation. It is fully our expectation to provide that.

What we have been able to do with modelling at this point is use our in-house tool, which is the emissions analysis tool, to understand what the emission savings from each of the different component measures would be and that's where the 4% figure for the T-Charge came from.

Tony Devenish AM: Thank you, that is really helpful. In the autumn, just to restate what you have said, the modelling will be publically available for all the experts within London.

Elliot Treharne (Air Quality Manager, GLA): Yes.

Tony Devenish AM: I know we get lots of residents who really look at these things in detail, and their input would be really good. To what extent will Londoners and businesses be able to switch vehicles, do you believe, or otherwise adapt their behaviour by next year?

Elliot Treharne (Air Quality Manager, GLA): In terms of the way we have looked at the charge, and the reason why the charge level was chosen at £10, is because we believe that is the level of charge which is most likely to encourage people to switch their vehicle. What we want to actually do, is encourage Londoners who do use the central zone with a vehicle to switch that to a compliant vehicle. If you think about the age limit, in effect that means next year they will need to have a vehicle that is either 12 years old or younger in order not to have to pay the T-Charge.

There is a whole range of options in terms of second-hand vehicles which would be compliant. Of course some people who currently choose to drive into the Congestion Charge zone, there is a whole range of alternatives in terms of public transport, in terms of promoting walking and cycling as well. As I said at the outset, the very key point is the Mayor's efforts with Government to put in place a diesel scrappage scheme to actually provide some financial help, specifically for smaller businesses, I think would be a priority in order to meet those additional costs for complying with the new standards.

Tony Devenish AM: Thank you. Can you talk a little bit about the income you are going to raise versus the costs that you are going to incur? Hopefully you are going to be in the positive.

Elliot Treharne (Air Quality Manager, GLA): Actual fact, unlike, for example, congestion charging, the Low Emission Zone (LEZ), which covers currently London, historically has not raised money, because we want people to comply. In a similar way, we are expecting with the T-Charge that the cost of actually putting it in place will offset any revenue that we actually get. Overall it will not generate any revenue, it will just cover its own costs, is our current estimate.

Tony Devenish AM: Thank you. Looking into the future, and maybe I can bring in Simon Birkett on this one, after asking you Elliot, as well, how would you see the T-Charge evolving in the future.

Elliot Treharne (Air Quality Manager, GLA): That is a very good question. There are a number of different options. It is part of the reason why we are so keen for a consultation to take place, so that we can hear other people's views. There are opportunities obviously once you introduce the ULEZ potentially to see how you can continue to incentivise even cleaner vehicles, like zero emission vehicles, but that is really not a decision that has been made, that is something we are asking Londoners to come and talk to us about, through the consultation process, to let us know what they think the appropriate next step is. The Mayor has set out his package so far and that stops with the ULEZ, but we are aware that there are other ideas and there are other opportunities and the Mayor was very clear he wants to hear from Londoners about what those might be. Simon?

Simon Birkett (Founder and Director, Clean Air in London): Thank you very much. I think the Mayor has got off to an extremely positive start to be putting out a big package of proposals on his fifth day and more detail after two months is very impressive. However, I think it is important here, as Elliot has done, to set out the context a little. The scale of the problem that we have with diesel, in terms of the health problem that it is creating is vast, absolutely vast. It is mathematically impossible for London to comply with World Health Organisation (WHO) guidelines for nitrogen dioxide (NO₂), for example, unless it completely gets rid of diesel - completely gets rid of diesel. That is the scale of the problem that we have from buses, taxis, cars, trucks and so on. It is particularly a problem in the most active parts of London really between the North and South Circular and a number of hot spots.

To give you just one example: Putney High Street, the levels of NO₂, which is one of the two problems that we worry about, is over three times the WHO guideline, and that was meant to be achieved six and a half years ago in London under the United Kingdom (UK) and European Union (EU) laws. We are talking about a vast problem. The Mayor has made a start but to be honest the risks for him are on the upside, not the downside. It is not that he does stuff and gets it wrong, or whatever else, the risk is that he does not do enough stuff. That is the really big risk here. He has a very, very powerful mandate from his manifesto, which talked about several things, but what we need and the T-Charge and the ULEZ, which we will talk about later, tackle different elements of this. We need four things to tackle the vehicle problem for the diesel. We need the ULEZ to be bigger, stronger, smarter and most definitely sooner. The T-Charge I guess makes it a bit stronger, perhaps, and certainly brings it forward a bit. However, in terms of making it smarter, which is to pick up Assembly Member Devenish's point, the way to do that is through, and it will have to come, is simplifying three or four schemes. Do not forget we have a LEZ at the M25, we have a Central Congestion Charge zone, we are going to have a T-Charge, we are going to have a ULEZ brought forward, we are going to have a ULEZ at the North and South Circular and a ULEZ for trucks and coaches at the M25, all at the same time. The way to simplify that is just to have one scheme, which I sat down with Isabel Dedring [Global Transport Leader, Arup and former Deputy Mayor for Transport] and designed literally on the back of an envelope, a couple of years ago, is emission-based road charging. That has four elements to it: are vehicles inside or outside the North and South Circular what is the time of day, is it peak hour or not - morning or peak hour or not --

Leonie Cooper (Chair): I am going to stop you there because you are going right into the whole discussion about the ULEZ, rather than sticking with T-Charge, if you do not mind, Simon.

Simon Birkett (Founder and Director, Clean Air in London): OK, just one point on the T-Charge then.

Leonie Cooper (Chair): Yes, if we can stick with the T-Charge because we are going to come to the ULEZ in a minute.

Simon Birkett (Founder and Director, Clean Air in London): OK, thank you. Just one point on the T-Charge. I am not saying it is wrong, but I do not quite understand the reason for lumping petrol vehicles with diesel for the T-Charge. That will obviously have a congestion benefit but I am not sure that the emissions from petrol vehicles will be anything on the scale of those from diesel vehicles.

Leonie Cooper (Chair): You really are addressing my point about the blunt instrument of 2005 and the year?

Simon Birkett (Founder and Director, Clean Air in London): Yes, and spreading it to petrol. I would like to really understand why petrol vehicles are included in that.

Leonie Cooper (Chair): Do you want to come back on this, Elliot?

Elliot Treharne (Air Quality Manager, GLA): Yes. I realise you want to focus on the T-Charge, so forgive me for just tiptoeing into the ULEZ discussion a little bit. Obviously in the original proposal in 2020 was for the ULEZ to have a Euro 6 diesel requirement and a Euro 4 petrol requirement. Our logic, at least with the initial proposals in terms of the T-Charge was, in effect, introducing the first stage of ULEZ, is one way of thinking about it. It is that initial down payment and sending that signal to Londoners about the change that is about to take place, which is why in the discussion we had we thought that putting in place the Euro 4 requirement, both for the diesel vehicles and petrol, would be the most consistent with the later messaging that we would need to --

Leonie Cooper (Chair): Just hold on, just one second, can we say goodbye to the Enfield Hillel Primary School? Thank you very much for joining us for part of our debate on air quality in London. Bye-bye.

Elliot Treharne (Air Quality Manager, GLA): We think that in terms of the messaging that we are trying to send, bearing in mind that one of the Mayor's proposals is to bring forward the ULEZ in central London to 2019, we were getting very concerned about sending two messages about which emission standard people actually needed to meet. It was a pragmatic decision around the messaging and the communication that we would need to do around the schemes to Londoners. Simon [Birkett] is quite right that if you look at the comparative performance of petrol versus diesel, there is a reason why everyone talks about 'dirty diesel', in real world conditions it has significantly underperformed, and compared to petrol, which has been relatively successful in meeting its emission requirements, is the villain of the piece. Obviously in the future we do want to address emissions more generally, including from petrol vehicles, and older petrol vehicles still have emissions which we need to address in the future as we move towards ULEZ.

Leonie Cooper (Chair): The answer is really that the T-Charge is to address the complexity of the levels of different zones, because it is just simple and it just applies to everything and the cut off is 2005.

Elliot Treharne (Air Quality Manager, GLA): Yes, and 2005 was consistent with what we had already said with ULEZ and there is a huge amount of evidence and logic behind why we chose those standards for ULEZ, so it is about consistency as well, bearing in mind there is only a two-year differential there.

Leonie Cooper (Chair): We really do need to move on to ULEZ because we keep wanting to --

Nicky Gavron AM: Can I just ask this quick question because I think it is very related, which is can you just remind us - because, OK, say I am switching because I have a car before 2005 - I want to know what incentives there are. Never mind the charge, what are the incentives for me to get a clean fuel car? What are the exemptions under the Congestion Charge which will help me?

Elliot Treharne (Air Quality Manager, GLA): There are a number of different incentives which are currently in place. I assume we are talking about alternative technologies like electric vehicles?

Nicky Gavron AM: Am I exempt if I have an electric vehicle?

Elliot Treharne (Air Quality Manager, GLA): Yes, you get 100% discount from the Congestion Charge, but there is also funding available from the Government. If you are buying a van it is £8,000, if it is a car it is £4,500, so there is a huge number of incentives to help you. There are also tax benefits for company cars, etc, so there are financial incentives in the system as well.

Nicky Gavron AM: I think you ought to really bring that out in the messaging.

Elliot Treharne (Air Quality Manager, GLA): That is a good point, yes.

Leonie Cooper (Chair): Caroline wanted come in as well.

Caroline Russell (Deputy Chair): I just wanted to come back to this question that Simon Birkett raised about including petrol vehicles. I now understand that you are including the petrol vehicles because you are trying to establish this baseline of age of vehicle. Why not go for Euro 6 for the diesel vehicles immediately?

Elliot Treharne (Air Quality Manager, GLA): 2017. The practical reason for that is some diesel vehicles, say for example diesel vans, only become available in September 2016, so putting in place that requirement in 2017 would be hugely complicated in terms of people having the opportunity to switch to other vehicles, to their being a second-hand market available. That would be very challenging to implement, which is why the Mayor --

Leonie Cooper (Chair): I think this did get touched on at the last meeting by Richard Howard [Head of Environment & Energy, Policy Exchange], who was also saying that everything should be at Euro 6.

Jennette Arnold OBE: Elliot, the Environment Committee of the Assembly has long argued for the implementation earlier than 2020. Clearly we welcome the fact that the Mayor has taken on two other recommendations from the Committee. I want to talk about the impact on Londoners, and can you just help me with the profile of the Londoners who you believe will possibly be in the first tranche, in the sense of affordability, they can comply, then there are a huge group of other people who cannot and what we will then be creating is some kind of a two, three or four tier structure across London. Can you share your thinking about how you thought about this impact?

Elliot Treharne (Air Quality Manager, GLA): Yes. It is fair to say that one of the priorities of the Mayor is obviously a fairness agenda, and I think that is something that has been reflected in our thinking about when we address this, which is why we have, in trying to understand some of those impacts, looked at, for example, the 2005 cut off, rather than something like the Euro 6. That then does give a greater proportion of vehicles a whole different range of prices, which does make it more affordable for a wider range of Londoners to be able to adapt to the charge that is in place. There is clearly much more work that needs to be done to understand the full breadth of impacts. We have not been able to complete all that work in the first eight-week period, but it will be done in time for the detailed policy consultation, which will be starting in the autumn, and there will be an impact assessment linked with that, which we will be able to share with the Committee, and obviously will be publically available as well.

One of the reasons the Mayor is so passionate about going for a diesel scrappage scheme is because he is aware about some of those potential impacts on some of the poorest Londoners and people who might be doing shift work, for example, who have a particular reliance on their vehicle. Although it is also worth mentioning that often the poorest Londoners are the people who have the worst air, in terms of the impacts they have, in terms of their health, so they will be receiving some of the greatest benefits from these types of interventions. In the round we think, and the Mayor has said that he thinks this is the right balance in terms of delivering those vital improvements in terms of health to all Londoners while trying to make sure there is sufficient protection and support in place to help other disadvantaged Londoners to meet those new standards.

Jennette Arnold OBE: Yes, I take your point, except when you generalise and talk about ‘all Londoners’ then invariably you never deal with the specific areas in London that require the intervention. If you do not deal with the points of intervention you have no chance of dealing with the all London approach --

Elliot Treharne (Air Quality Manager, GLA): I would not disagree.

Jennette Arnold OBE: -- that you talk about, so it is not helpful to repeat the Mayor’s mantra. What we want is the specifics from you as officers, in terms of understanding - there are going to be problems, definitely. In terms of, say, adapting behaviour, if you like, what have you learnt from former messages that you can gain from, so that you will be able to have a greater impact?

Elliot Treharne (Air Quality Manager, GLA): In response to your first point, it is a very fair point, in terms of having a significant level of detail and understanding. As I say, if I can ask for your understanding in terms of the timescales we are working to, that is a piece of further analysis which is underway. We have had some initial outputs which have been informing some of our thinking, but that is not going to be complete until the more detailed consultation. It is not that we are not very concerned about those and we have not thought about them, it is just a case in terms of acquiring additional time to understand the full range and specificity of those impacts. In order to look at specific local issues and all the rest of it, it does take time and we will be able to deal with that in time for the autumn consultation.

Shaun Bailey AM: Thank you, Elliot, just a small point. A mix of Assembly Member Arnold’s and Assembly Member Devenish’s points about the modelling and the impact of the ULEZ: My first point would be what sort of exemptions are you looking at for people who live in and around this proposed zone? Are they just going to be lumped with the bill? Is there anybody who would avoid the bill? What will constitute an avoidance of that bill?

Elliot Treharne (Air Quality Manager, GLA): In terms of the T-Charge specifically, the Mayor announced that there would be a 90% discount for residents. Generally speaking what has happened in the past with the Congestion Charge zone is that there is a buffer zone around the zone to recognise the fact that some people live in very close proximity to the zone and have to go in, so they would also be able to book that 90% discount.

On balance we felt that having consistency of what we have done with the congestion charge, the 90% discount would be the right approach to take with the T-Charge as well, recognising that the people living in the zone in some ways do not have an alternative in terms of some of their activity, but they are also going to benefit the most from either reduced congestion or improved air quality. There does still need to be some kind of effect on them to encourage their behaviour change, but it is at a much lower proportion.

Shaun Bailey AM: Now to the modelling part. If the model is new, you have not had time to finesse the model, you then cannot give us an accurate idea of the impact of the ULEZ.

Elliot Treharne (Air Quality Manager, GLA): There are two points there. There is the model that we use for the T-Charge based on the work that we have done and the data that we have from the congestion charge, so we have a huge amount of data and analysis about the types of the vehicles and from ULEZ and the work that we did over the last three years on the ULEZ, we had a huge amount of information about the way that people respond to charges as incentives or disincentives. Then for ULEZ specifically, we have done a huge amount of modelling work linked to that which has informed everything that we have then said about the T-Charge and any changes to ULEZ in terms of bringing it forward or making the zone live. We have a huge

amount of information and understanding, which is why we feel confident with the numbers that we are coming out with, although those of course will be refined over time.

Shaun Bailey AM: Just one tiny little plea, because your comment about pollution being in the areas where the poorest people are means that we run the risk of charging those poor people to clean the air. That is what it feels like to me.

Jennette Arnold OBE: Yes, good point there. Could I just go to you now, Simon [Birkett] because you started to talk about the ULEZ? Anything to say in terms of what you have just heard Elliot say?

Simon Birkett (Founder and Director, Clean Air in London): We really need to stand back here. Last Tuesday was the 60th anniversary of the Clean Air Act when we banned coal and everyone said, "Well the poor will freeze" and, "Government hasn't got money" and the sort of things that we hear now. Actually it was the poor who benefited most; the costs were less and the benefits were greater. Really this is something that we definitely must do and the question is how far and how fast. It is also worth saying that Berlin, for example, banned pre-Euro 4 diesel vehicles - so the same ones that will be caught by the T-Charge - from 1 January 2010, which will be almost exactly eight years before London starts putting a £10 daily charge on as opposed to a ban. We should look at the relative ambition levels for London versus other places. Yes, the Mayor is being ambitious about the scale of things he plans for 2020. I strongly will argue that he must go much further on that. Really just on the T-Charge and the older diesel vehicles we are way behind a whole lot of other places in Europe, so we must really just plough on with that quickly.

Jennette Arnold OBE: Thank you for that. The additional air quality gains, am I wrong in terms of what you were saying that unless we get into sprint mode it is not doable?

Simon Birkett (Founder and Director, Clean Air in London): It is mathematically not possible. I have looked at two sites today, the Putney High Street example I gave where the annual levels of NO₂ were 133 micrograms per cubic metre, the WHO guideline is 40, which is the same as the legal limit. Brixton Road is 123, not 133, but it is still over three times. In Putney High Street, there have been over 830 hours already this year over 200 micrograms per cubic metre. The WHO guideline is you should have no human exposure above that level for a single hour. The legal limit is 18.

We cannot possibly reduce these levels of toxic gas - one of the two key measures particles and NO₂ - unless we get rid of diesel vehicles as we got rid of coal. It is that scale of revolution we are talking about. The Mayor has made some very encouraging sounds along those lines and as I said before, his risk is on the upside, that he does not do enough, rather than that he does not quite implement something neatly.

Jennette Arnold OBE AM: Alex, do you have anything to say in terms of this general discussion or anything about the ULEZ? Do you have anything to add?

Alex Williams (Acting Managing Director of Planning, Transport for London): On the ULEZ scheme that is being implemented in 2020, there is a very interesting debate about whether the implementation is accelerated to 2019. It is going to be in the consultation that has been issued and we will be looking at those results in great detail.

It is worth going back to when the ULEZ was announced. It was announced in 2015. The Mayor at the time [Boris Johnson MP] said this was a radical change and it would lead to a step change improvement in air quality. He gave Londoners and the people who use London roads five years to adapt. That is what people

are expecting. If you look at the change in vehicle types, there is a trajectory to make sure that a lot of people do change to clean vehicles and do not pay the charge.

If you accelerate it, there clearly is a benefit to that in air quality and I can understand people wanting that but it is going to mean that that adaptation time is less. You could argue that four years is enough but part of the issue is that people are expecting 2020. If you tell them this year or next year, "No, it is not 2020, it is 2019", there is an impact that has to be considered. For me, that is a clear political decision for the Mayor to take when he has seen all of the information and evidence.

Caroline Russell AM (Deputy Chair): Before I dive into the size of this ULEZ, I just wanted to pick up the very clear messages we have heard from Simon Birkett about the scale of the health problem that we are dealing with and how far behind we are from other cities. We have heard a lot about people adapting their cars and having time to be able to change. If we are going to sort out this health problem, we need to be also looking at - and I hope TfL is looking at - other options for people. It might be car sharing options to help people get over the idea of moving away from car travel, but also making sure that the walking, the cycling and the public transport choices for all Londoners, wherever they live, whether they are in outer London or in the centre, are convenient and feel like positive choices. That way, we are not going to be trying to support people to change to another car because even the cleanest cars still produce particles. The electric cars still have particles which are very damaging to health. TfL needs to be leading alternatives for people that go beyond car use.

To get back to the ULEZ and the boundary of the North and South Circular - the Mayor very helpfully clarified the other day that it included the North and South Circular - there are a lot of boroughs that are cut in half by the North and South Circular. There are an awful lot of residents who will probably not understand why the people inside the North and South Circular get to have cleaner air, cleaner vehicles, stronger controls and more rapid getting rid of diesel, and the people just the other side of this big main road are left in a dirtier air zone. I just wondered what thinking you have done about why you would go for the North and South Circular and why you would not be more ambitious, as Simon Birkett has been suggesting, and perhaps just make it Londonwide.

Elliot Treharne (Air Quality Manager, GLA): Could I perhaps jump in with a comment on that? I think Simon was setting this out earlier. When you look at the overall package, it is a bit more nuanced than that. You will obviously have the proposal to expand the ULEZ up to the North and South Circular, which would be for cars and vans, but for trucks, buses and coaches the proposal is to expand the ULEZ standards - in effect the Euro 6 diesel standard - to the whole of London. It is a bit more complicated than just expanding the ULEZ to the North and South Circular. We think that will deliver very significant benefits in terms of improving bus fleets, in terms of coaches and in terms of heavy vehicles.

It is also worth bearing in mind that when we looked at the ULEZ, the original scheme proposed by the previous Mayor in central London, what we saw was knock-on benefits outside of that zone that were very considerable. We would expect the same thing to happen again from the expanded ULEZ. While you will have, for want for a better word, the boundary to the zone, you will still see benefits beyond that because the zone is so large and so many people will have to renew their vehicle or get a younger second-hand vehicle to meet those standards. There will be considerable knock-on benefits across the whole city.

Caroline Russell AM (Deputy Chair): Or drive less.

Elliot Treharne (Air Quality Manager, GLA): Absolutely.

Caroline Russell AM (Deputy Chair): Could we keep that on the agenda? In the end, driving less is what is going to clean up our air faster.

Alex Williams (Acting Managing Director of Planning, Transport for London): That is a very valid point. I know Valerie [Shawcross CBE, Deputy Mayor for Transport] was here this morning for the Transport Committee and was emphasising those points about active travel and healthy streets. That is a key part of her message to us and as you know, we at TfL take that issue very seriously. In terms of the issue of boundary, that is going to be a big issue in this consultation that has just been issued. Wherever you draw the boundary, there will be people just outside or just inside who may want it to be the other way around. We have that with the Low Emissions Zone (LEZ), which is Londonwide now. Some people just outside of London would like to be in the LEZ. Wherever you put it, you will have those issues.

The thing I would draw to your attention is that the ULEZ scheme we are looking at now is just the Congestion Charge zone. If we extend ULEZ to the North and South Circular, it is a massive increase in that scheme. It is 28 times the size. It goes from affecting 85,000 households to 1.3 million. It is a huge step change increase in what we need to do. I take your point. You could say, "Why stop at the North and South Circular? Why not go to the whole of London?" Those figures could become even greater but I do not think we should forget the scale of ambition and scale of change that is being proposed here. There are 30,000 cars from residents in the central London Congestion Charge zone and 815,000 cars in the extended ULEZ if you went to the North and South Circular. It has a much bigger footprint and a much bigger impact as a result.

Caroline Russell AM (Deputy Chair): If we think back to the North and South Circular, are you worried about greater congestion in the areas outside the North and South Circular because people are trying to avoid coming through the centre?

Alex Williams (Acting Managing Director of Planning, Transport for London): That is an issue we will have to look at. There has to be a lot of work done on defining the boundary. On the North Circular, you have a relatively coherent boundary. On the South Circular, you have quite a few anomalies there where it does not work. It goes through town centres in a fairly circuitous way, like Catford or Wandsworth, and we would have to look at the specifics of the boundary. It is exactly what we did for the congestion charging scheme. That does not follow the Inner Ring Road. There are some kinks in it to deal with specific issues. For example, the University College London Hospitals (UCLH) hospital in Euston is outside of the zone so that people can get to hospital and not have to pay the congestion charge. I am sure there are going to be examples like that all around London but particularly in south London, where the boundary is a tougher one to crack. We have some research on that and we are going to look at that in a lot more detail.

Caroline Russell AM (Deputy Chair): Does anyone else want to come in? Simon?

Simon Birkett (Founder and Director, Clean Air in London): Yes, if I may just on the North and South Circular. What I would say is if you look at the NO₂ heat map of London, the North and South Circular is a pretty good proxy for where the WHO guideline is likely to be most breached. Rather than extending that for the main cleaner zone, there are various other hotspots which may need their own little zone. There is a choice about whether you extend the whole of the ULEZ out to the M25 zone or whether you keep it at the North and South Circular and then you have some other hotspot areas which are included.

It is worth saying that the thing which I am most alarmed about, apart from arguing about the strength or smartness or so on of the ULEZ of course, is the possibility that the Mayor might extend it to the North and South Circular, but he might just leave it at September 2020 which I think would be a terrifying prospect. I think that is terrifying for several reasons as it would be after the next mayoral election. We saw

Boris [Johnson] - not that he will be Mayor in 2020, I do not think, but there is a risk - postponed phase 3 of the LEZ as soon as he was elected. He canned the carbon dioxide (CO₂) charge. I think not just "Is it too late?" but it is after an important election date so it is absolutely vital to me. It would be unacceptable to bring in the bigger ULEZ or any part of a stronger or smarter ULEZ after the next mayoral election date. The natural last deadline is 1 January 2020, I believe.

What I would point you to is the Mayor's promise in his manifesto where he said:

"I will: Consult on bringing forward the Ultra Low Emission Zone and expanding it along major arterial routes or a wider section of central London."

Possibly, a pedantic lawyer might say that he could bring it forward and expand it separately. However, I think the sense of this really is a fabulously strong mandate for the Mayor to bring forward the ULEZ, the central one, into 2019 to bring in the T-Charge, strengthen and make these things smarter. For the larger ULEZ, it absolutely has to be no later than 1 January 2020 and I would really like to see it in 2019 at the absolute latest, please.

Leonie Cooper AM (Chair): I would like to bring in Julian now, if I may, on the issue about the borough boundaries. Merton and Wandsworth have the problem of the ULEZ going partly through Wandsworth and not even hitting Merton and Ealing. Your colleagues on London Councils will probably have views on this, I should think.

Councillor Julian Bell (Chair, Transport and Environment Committee, London Councils): Yes, thank you, Chair. London Councils and the Transport and Environment Committee (TEC) that I chair have discussed this on many occasions. We welcome the Mayor's proposals to expand and bring forward the implementation. That was something that we had always called for and we remain supportive and positive about working towards doing that.

It is also fair to say though that different boroughs have different views about how this will work. The displacement that would come from the original ULEZ in the Congestion Charge zone was always a concern for the surrounding boroughs. Therefore, they had argued and wanted an expansion to be costed up. Again, given the scale that Alex [Williams] has just talked about in terms of going to the North and South Circular boundary, what are the costs of putting that camera infrastructure in? What is the payback period? All of that is important.

In terms of the North and South Circular, I again agree with Alex. The South Circular is a much bigger problem than the North Circular is. At our last TEC, we talked about this and a number of boroughs expressed concerns about displacement. My borough is, as you said, one that gets cut in half so about a third would be in the zone and two-thirds would be out of it. In Ealing, Hillingdon and Hounslow, we have a particular hotspot that would be out of the proposed ULEZ in Heathrow. We do have to have a look at how Heathrow might be incorporated into this.

The other conversation that we had at our last committee meeting was around whether or not you do go with the idea of beefing up the LEZ within the M25 and whether that is easier to do. Then again, not all boroughs are in support of that so I cannot speak for all of the boroughs.

Leonie Cooper AM (Chair): Thank you. We are going to bring you in in a second, Simon [Alcock], because we are going to ask some specific questions about the court case. I just wonder if I could ask Clare in terms of

bringing it forward earlier rather than things being pushed back, and some of the points that Simon [Birkett] was making. How would you address that point?

Clare Cox (Director of Communications, British Lung Foundation): For the at least 1.1 million people living in London with a respiratory condition and the many more who come in every day to work, we know that air pollution poses a very real threat to their health. We very much welcome the Mayor's commitment to cleaning up London air.

With all these things, the question is in the detail. While we welcome the scale of ambition and, rather like Simon [Birkett], would if anything want it accelerated, one of the things we have not talked about today is the exemption in terms of mobility and that needs to be looked at in more detail.

We know and we welcome the fact that Blue Badge is being looked at, but for many people with respiratory and cardiovascular disease, their symptoms fluctuate and they are not eligible for a Blue Badge. While we have all talked about the importance of improving public transport, for certain people public transport is not a real option at the moment. If you are not able to walk much beyond your door on a certain day, then you are not able to take public transport in its current form.

We absolutely welcome the proposals and, like Simon [Birkett], we would like if anything for them to be more ambitious. However, more thought is needed on the detail and we welcome the fact that over the coming months with the consultation thought will be given to that.

Leonie Cooper AM (Chair): There are some interesting points there of things that probably need to be fed back into the pre-consultation, which I am sure you are all planning to respond to and which we will be responding to as a committee as well.

Caroline Russell AM (Deputy Chair): Good point. The final one from me on this bit is: how are you planning to signal, monitor and enforce the boundary of the ULEZ? That would be the North and South Circular.

Alex Williams (Acting Managing Director of Planning, Transport for London): We have not defined the precise mechanism at the moment. We have a discussion with the political adviser to the GLA next week on that very issue, one of the many issues about the North and South Circular.

What you would have to have is, as with the congestion charging scheme, cameras on the cordon as people come into the zone. We have not decided the density of the camera network or whether you have a mobile network within the North and South Circular. That is one of the issues that we would have to look at in detail, but it would be camera-based enforcement. As I say, we have not worked through as yet the density, whether they are fixed or mobile or how many fixed or mobile.

Caroline Russell AM (Deputy Chair): Do you anticipate that the scheme will pay for itself?

Alex Williams (Acting Managing Director of Planning, Transport for London): Yes, although with all of these things, the objective is not money; it is compliance. Over a three or five-year period, I think it might even make a surplus. Over a ten-year period, it might turn into a deficit as people change their behaviour, which is what we want to achieve.

I would not want to quote specific figures there because for me it is just too fluid at the moment. We can be fairly accurate on costs once we have a defined mechanism of enforcement, but income really depends on how quickly people change their behaviour and it is very difficult to predict that.

Leonie Cooper AM (Chair): The next area that I would like to move on to - and I am probably going to be pointing pretty firmly at you, Simon - is about where we are with the Supreme Court case. Can I just start by saying I was lucky enough to be at Mansion House in March 2016. Congratulations on winning an absolute clutch of awards from the City of London Sustainable City Awards. That was a very welcome thing to see.

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): Thank you.

Leonie Cooper AM (Chair): Some of those awards were because of the specific work that you have been doing on the UK Air Quality Plan and its insufficiencies. If you could just fill us in on how we got to where we are and where we are now?

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): Of course. This court case has been ongoing, most people here know, for five/six years and we had a victory last April in the Supreme Court. It is based on the EU Air Quality Directive which states that Government should meet legal limits by 2010, as it was, and we are in breach of NOx limits.

The Supreme Court ruled last year that the Government should meet these limits within the shortest time possible. The Government had to go away and come back with new proposals which it came forward with in December last year. We felt they were not good enough in a number of ways. We did not think it was going to meet them in the shortest time possible. In terms of London, there was nothing new and we have seen with the new Mayor coming in in May 2016 that there are certainly lots of new things that it could have been looking at.

We are taking it back to court. This time, it is the High Court. The judge has ruled that there is a case to be answered and that it should be fast-tracked. We are going back on 18 and 19 October 2016 and our case is very much that we want to see a range of policies that we think can bring forward meeting legal limits. At the moment, in many areas it is 2025 and afterwards, and it is 38 out of 43 zones that we are breaking limits, including London so it is not great.

Leonie Cooper AM (Chair): Why do you think the Mayor decided to join himself to the action? I presume that is something that ClientEarth welcomed?

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): Yes, we welcomed it, not in a political sense but just in the sense that we felt it was an admittance that not enough was being done. Previously, we had the ULEZ coming in in 2020 and it was seen that that was enough and that we could not go any further because of all these difficulties. He has shown, firstly, by joining the case and saying, "Look, there is not enough here. We need to do more"; and secondly, with the proposals that have come forward in the past month or so since he has been in. We broadly welcome those. There are few issues which I am sure we will come on to and which have been discussed already that we think could be improved, but on the whole we are very pleased with them.

We are pleased that he is in there. I think it is an admittance that more can be done but there is also admittance really that he cannot do it on his own and that the national Government needs to play its role in this, not least with the [diesel] scrappage scheme that we have touched on. It is great that he is going to put

forward a proposal, but he cannot implement that. There are various fiscal incentives that could be there to encourage people to switch. Again, you need national Government as well as funding and all the rest of it.

We are very pleased that he has joined, we see it as an admittance that more could be done and we hope the Government, especially the new Government now, will listen.

Leonie Cooper AM (Chair): I think it would be hard to ask the Government to join your action as well because then they would be joining the action against themselves.

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): They should join it and then there will be no case and we can get on with it, rather than wasting money.

Leonie Cooper AM (Chair): For example, Ealing or other local authorities could join the action as well. Is that something that you would welcome?

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): I think so. I do not know if they can actually because we did not serve them as an interested party so they may not be able to. We served the Department for Transport (DfT), Scotland and Wales but not councils. We would very much welcome them joining and supporting it, definitely.

Leonie Cooper AM (Chair): Thank you very much.

Caroline Russell AM (Deputy Chair): Yes, continuing about EU regulation and the EU referendum vote casts lots of things into question. Do you think that there is any chance that the UK could still be fined by the European courts before any leaving happens?

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): I will just answer that and I can say a bit more about Brexit as well. Just on that very specific point, it is difficult to say but I think it is unlikely now, not least because I believe the Commission was seeing our case as a test bed in one sense. Often, these things in practice have taken over a ten-year period to come into play. Given, I think it was, 2014 when the proceedings were issued, unless we are still in the EU in 2024, which I think is unlikely, but who knows? In a perfect world, there would not be any fines. The Government would be getting on with it. I think it is hard to see that happening now, is all I could really say.

Caroline Russell AM (Deputy Chair): Then there is a whole raft of questions about what legal limit values apply after any leaving of the EU. How much also of the Air Quality Directive, which I know is EU law, is embedded in UK law and would that all have to be rewritten?

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): In the short term, nothing is affected. We are still a member of the EU. We have our court case in October 2016. EU law is still UK law so in the short term, we are not affected. In the longer term, I think it is mixed. It depends on what sort of relationship we come to have with the EU and I do not think that is clear by any means yet and what that would be.

I think it is likely that we would be left with some sort of mishmash of laws here, some EU law that is already in UK law. It would be a bit confusing, which is why we are calling for a new Clean Air Act which would enshrine all the responsibilities and limits that we currently have in place, and perhaps improving them as well.

Simon [Birkett] has referred to the WHO limits which are stricter than the actual European law in many places. Also, a Clean Air Act that tackles diesel pollution in the way that it tackled coal 60 years ago. That is the sort

of thing that we are going to be looking for and campaigning for just so it clears everything up and there is no confusion around what might happen to the law.

Elliot Treharne (Air Quality Manager, GLA): If I could just jump in to echo a huge amount of what Simon [Alcock] just said. As you know - many of you attended - the Mayor made a similar call for a 21st century Clean Air Act. This could be a proactive response to Brexit in terms of making sure that the right protections are in place and embedded in UK law. We already have the standards built into the Air Quality Regulations within UK law but Simon is quite correct. It is a patchwork quilt currently, some of it done at European level, some of it done locally or nationally. How do we make sure that we have a coherent framework post-Brexit? Regardless of whatever our future relationship is, it is appropriate for citizens of the UK to be able to hold their government to account to make sure that they are delivering the healthy air that they all deserve.

Just one more point on the Clean Air Act. It is also a potential tool to give local authorities, the Mayor and other parts of the UK the powers they need to tackle all kinds of emission sources which currently we just do not have the power to tackle, construction or river emissions. There are a number of different areas where we really want to do better.

Clare Cox (Director of Communications, British Lung Foundation): Just to echo what the others here have said. We would also welcome the introduction of the Clean Air Act. The time is right.

Leonie Cooper AM (Chair): Thank you.

Shaun Bailey AM: Just to bottom this out for me because the EU has not been entirely good on this. The measures it has around NO₂ production have been quite weak. The German car lobby, in particular, is massively powerful. Is this an opportunity for London in particular to lead in helping turn that around? It strikes me this patchwork quilt: if we are doing this work around ULEZ, T-Charge, etc, could we not just provide the one blanket from our research?

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): I agree with that. There is a big opportunity for London here to lead the way and show it and I think you touched on it there with the German car lobby. I think what is missing in this debate - and there is an opportunity for the Mayor here - is the real world driving emissions, cars doing what they say on the tin, basically. We would support some form of labelling so people know when they are buying cars what the actual emissions level is on the road, not just in the labs. I think the danger with the Euro 4 thing in the T-Charge is that you encourage people to switch cars, but they end up with another diesel car. Even Euro 6, we know that there are issues with that, so I think taking on the car manufacturers, I know you did not quite say it like that, but I think it is certainly something that should be done. I think London should lead the way and I think the UK should lead the way really with the Clean Air Act, because then we have our set of laws.

Shaun Bailey AM: Outside of Brexit, we do not have that car lobby to wrestle with, we can --

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): I guess we do still though within the UK.

Nicky Gavron AM: We do, we do.

Shaun Bailey AM: But not in the same way the Germans do.

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): They still make cars here and we are still going to have to have their Euro standards, then we are going to go to a different set of standards, so I think it is --

Shaun Bailey AM: California does.

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): Yes, we could have American standards.

Leonie Cooper AM (Chair): I do not think we are going to exclude German and French cars from our roads, so I think whatever we bring in needs to cover all vehicles from wherever they originate, and of course some manufacturers manufacture vehicles in this country but are owned by global multinational companies, obviously Nissan and --

Shaun Bailey AM: They are all manufactured to that EU standard and if we are outside of that, maybe we would have a national standard.

Leonie Cooper AM (Chair): But then maybe you are agreeing with the concept of having the new Clean Air Act, which would then cover these points, which would be our own Clean Air Act.

Shaun Bailey AM: Yes, that is my point. Is this not an opportunity for us, for the Mayor, to set a direction of travel and maybe answer all the questions - who knows - about that? Because if we are outside of the Euro control, or will be, then we could go that way.

Leonie Cooper AM (Chair): We are going to come on to the relationship between what the Mayor can ask for and the need to ask for things at governmental level just in a second.

Simon Birkett (Founder and Director, Clean Air in London): I think to pick up Shaun's point, the United States (US) has technology-neutral standards for vehicle emissions, so it says what comes out of the tail pipe is allowed, whereas what we have done for 20 years across the whole of Europe - and actually the UK, every successive Government has campaigned for this - is set much laxer standards for diesel vehicles than petrol vehicles, going back to the 1990s. In fact, actually to have the Mayor championing proper technology-neutral standards will, frankly, get rid of diesel, because it is responsible for 90% to 95% of the most harmful exhaust emissions for particles and NO₂. Newer diesel vehicles produce much more NO₂ than older diesel vehicles as a percentage of NO_x, so the most unfair thing, or the most unjustified thing I think would be helping vehicle manufacturers sell more diesel vehicles now, because actually I do not think they are cleaner than some of the more recent vehicles, say even Euro 4. I really think this is actually about getting people out of diesel vehicles, focusing on proper technology-neutral standards and really we could be leading the way in Europe there, following more US style standards and it would force people out of diesel vehicles.

Leonie Cooper AM (Chair): I can see lots of nodding from a number of the other guests at what Simon [Birkett] was just saying there. I think that that leads us on neatly into the next area, which is beyond the Mayor, obviously some of these issues need to be addressed at national level, so we are just talking about the concept of a new Clean Air Act, which would embed and bring together in one place all of the different aspects that might be in this sort of patchwork quilt of legislation that points at us from different angles. But clearly, in his speech last week the Mayor was talking about a diesel scrappage scheme and I do not think that could be possibly be implemented just for London, and also he has been talking about Vehicle Excise Duty (VED) adjustments. Obviously, we have had some of those in the past that have enhanced people's desire to go down the road of diesel, but we have also enhanced the desire of people to go towards other CO₂ lower-

emitting vehicles as well. Actually, this might be addressed to Elliot to begin with, but I am sure everyone else will have views. How do you think that would operate? Do you think we are going to get buy-in from Government in terms of the diesel scrappage scheme and what kind of timescale would we need that to come in on to sit alongside the T-Charge to make it really effective?

Elliot Treharne (Air Quality Manager, GLA): Working with TfL, we are commissioning a very detailed piece of work which will answer all of those questions. I think there are some lessons we can learn from what has happened previously in terms of the national scrappage scheme that was in place from 2009. I think what we would be looking for is an amount per vehicle in order to encourage people to retire that vehicle. I think we will be looking at how we can target specific sectors in that, so one of the issues that has come out in terms of small businesses, are particular concerns about vans and small business owners, so I think that would be a priority for us and for the Mayor in terms of pushing this.

In terms of the likely response from Government, we are just beginning that process of engaging with them. They have asked us for our proposals; they are willing to listen. Obviously everything is in a little bit of flux at the moment with the Government.

Leonie Cooper AM (Chair): Really? Has something happened today?

Elliot Treharne (Air Quality Manager, GLA): Yes, something has happened today, as you know. We have had really very constructive discussions with officials. Obviously we had started to make some headway with the political leaders, who of course are the people we need to convince. Some of that work will continue.

Leonie Cooper AM (Chair): We do not have any kind of timescale on it, but the work has already begun to have those discussions and the door is not closed?

Elliot Treharne (Air Quality Manager, GLA): Yes, I think that is a fair summary.

Leonie Cooper AM (Chair): OK, as a summary.

Alex Williams (Acting Managing Director of Planning, Transport for London): I was just going to follow on from the point you made about VED, which is a very interesting area. The Government has signalled that the VED income from everyone who pays it across the country will be used to fund the Highways England motorway network and the strategic road network across the country and that will be effective from 2020. Our view - and the Mayor has lobbied the Secretary of State on this directly - is that VED that is raised within London should be: (1) used to invest in the road network within London, because most of the motorway network does not permeate into London, so we are paying a lot of money but not actually receiving that back, so there is an equity issue there; but (2) if it is devolved, it should give the Mayor the opportunity to set a new tariff system based around air quality objectives.

I think clearly everyone accepts that the previous structure of the charging which incentivised diesel is wrong and has not worked and has been counterproductive, but if it is devolved to the Mayor, it does give the Mayor the opportunity to address that within London, where the air quality problems are much worse. I think diesel scrappage is very interesting and we have commissioned work on it. I think it is a harder one to crack, to be perfectly honest. I think getting reform of VED, particularly for London, is something that is really worth going for. Obviously we will go for both of them, but VED reform and devolution is very important.

Leonie Cooper AM (Chair): One of my concerns though about the concept of diesel scrappage is that people would then go out - and I think Caroline [Russell AM] was touching on this earlier - and scrap their old

diesel when it was 2004 or 2005 and then they rush out to buy a newer diesel that has just been made in 2002, so for me, looking to TfL to come up with options that are incredibly attractive so that that process does not happen. Even if you are moving from a more heavily polluting diesel to a newer, slightly less polluting diesel, I do not really want to see people making that journey, I want to see them making the journey from a diesel to the more active travel, walking, cycling. But then for those that do still need vehicles – and we touched on it earlier on with Clare [Cox], why some people still need vehicles – that they should either be going heavily towards electric vehicles or hybrid, but making sure that overall they are not going from one diesel to a newer diesel.

Alex Williams (Acting Managing Director of Planning, Transport for London): Yes, I agree entirely. That is what we were looking at within the study, how you have a diesel scrappage scheme, which is going to be tough to get in, but if you do get it in, make sure it is as effective as it can possibly be. You are right, going from a 12-year-old diesel to a nine-year-old diesel is not going to make a great deal of difference.

Leonie Cooper AM (Chair): Not really, no.

Shaun Bailey AM: A scheme that proposed you scrapped your diesel, but only if you bought petrol or electric, would that be more useful from an emissions point of view?

Alex Williams (Acting Managing Director of Planning, Transport for London): Yes, but we have only just commissioned the study, so I cannot be too specific about what the outcomes of that study will be, but that is one of the things we are looking at. We are looking at what are the costs and structure of it, but secondly, the emissions benefits of various options. That is something we will have to look at.

Leonie Cooper AM (Chair): Sorry, when are we expecting the results of those studies?

Alex Williams (Acting Managing Director of Planning, Transport for London): Was it three months?

Elliot Treharne (Air Quality Manager, GLA): Yes, so we are saying the autumn, and again we can share that information.

Leonie Cooper AM (Chair): That also includes these studies on the diesel scrappage as well as the other ones?

Elliot Treharne (Air Quality Manager, GLA): Yes. Just one thing to highlight, because Caroline [Russell AM] made this point, is to say that a whole range of different alternatives to payment are also being looked at, for example, a membership of a car club. It is very much integrated into the thinking that we are doing.

Leonie Cooper AM (Chair): However, a membership of a car club where the cars that are provided are non-diesel --

Elliot Treharne (Air Quality Manager, GLA): Electric, potentially.

Leonie Cooper AM (Chair): -- and are under, I do not know, let us say 100 grams of CO₂ per kilometre or something like that?

Elliot Treharne (Air Quality Manager, GLA): There is a whole series of work in parallel in terms of car clubs to help them switch towards electric vehicles. There is a target for them to be 50% electric by 2025. We

are putting in place 1,000 charge points at car club parking bays. I think in the way that you highlighted at the beginning, this is very much an integrated approach across the whole swathe of activity that TfL is involved in.

Caroline Russell AM (Deputy Chair): Just as well as helping people to switch to car clubs, is the study that you are doing also looking at the impact of, for instance, providing lots and lots of secure on-street bike parking for people and giving them vouchers for buying bikes when they trade in their car? Because we just need to help people to go beyond a car, as an alternative to a car.

Elliot Treharne (Air Quality Manager, GLA): Absolutely. We have asked them to look at a whole range of different incentives, so it would not just be a requirement to get a new vehicle, it is how do you encourage kind of broader objectives around modal shifts? What it would not look at are kind of generalised incentives, so bike parking is not something that you can actually give to an individual, so we would be looking at things like, as you were saying, vouchers you could give to an individual to help buy a bike. That is where we would be focusing.

Caroline Russell AM (Deputy Chair): Although you can with those bike hangers, the ones that they have in all sorts of London boroughs, Hackney, Lambeth, all over the place. People have an individual space in those, so actually TfL could be providing the funding for bike hangers on particular streets for people who have gone through a diesel scrappage scheme work, possibly.

Elliot Treharne (Air Quality Manager, GLA): Absolutely. We always welcome and are open to suggestions. Hopefully this is a constructive process. The consultation is running in parallel to this, so we can take those ideas and feed those into the consultants.

Leonie Cooper AM (Chair): I can tell that Caroline is definitely going to be replying to the pre-consultation from the Mayor and making a number of different points.

Tony Devenish AM: My point was very similar. Rather than just have a consultation at the end of it, can we be involved in the process? It could be a two-way process, because with great respect to all consultants, being a consultant myself by background, they have their own prejudices and people like Simon [Birkett] I am sure would like to comment early in, and all of us would like to comment, and the wider society.

Elliot Treharne (Air Quality Manager, GLA): On the diesel scrappage proposals in particular or the whole --

Tony Devenish AM: On the whole shooting match, really. Not specific ones, but in terms of is the nudge there? Again I use that term, but it is about how we all, as politicians and officials and everybody else, get people to change their behaviour, because we always sit at the top and try to get people to change their behaviour, but we are famous for failing on every subject you can ever think about. If we are going to do it, we need to do it together.

Elliot Treharne (Air Quality Manager, GLA): I think hopefully today is indicating our willingness to listen. If there are meetings you would like to have with us, that is fine. With the stakeholders we actually have a number of engagement events planned, both before the September 2016 consultation and then on an ongoing basis, so the Mayor has been very, very clear. We do not have a monopoly on wisdom, we do not know everything. There are ideas and innovations that other people have and we want to hear those from everyone.

Leonie Cooper AM (Chair): The Mayor, in the speech that he made on the anniversary at Great Ormond Street Hospital, made it very clear that in this early pre-consultation soft phase, if you like, that he would

absolutely welcome comments being put in, so whilst we have discussed putting in something jointly from the Committee, which we will resolve between us afterwards, I think if you have got specific points that you want to make about the Cyclehoop parking facilities or about how to nudge people away from diesel towards walking, cycling or not owning diesel, going electric, I think putting those in individually as well would be very welcome, getting those into the mix.

Councillor Julian Bell (Chair, Transport and Environment Committee, London Councils): Just to reiterate the point that Alex [Williams] made about devolution of VED, again that is something that the boroughs would very strongly support. We are also concerned that the new VED bands that are going to be introduced in April next year actually remove all the incentives for low-carbon emission vehicles and only incentivise zero-emission vehicles. Obviously you need those incentives to look at not only carbon, but particulate matter (PM) and NO_x emissions as well. If we could get that devolved to us, then we could start to address the problems.

Simon Birkett (Founder and Director, Clean Air in London): I am sure VED is a much more productive area to be looking at than a scrappage scheme. That would be my guess and I would support that. I would also support that the modelling looks at two things, two extra things that probably are not being looked at very closely. One is for PM 2.5 exhaust emissions, because the NO₂ limits, we have talked about how badly they are being breached, but no one in the last six years - and it really ought to be a London Assembly Environment Committee inquiry - has looked at the way in which London is almost certain to breach the PM 2.5 legal limits in 2020. That really ought to be a top priority, because that is the one that is most clearly linked to the health effects.

The second thing is that last autumn the UK, under the United Nations, signed up to the sustainable development goals. Goal 3.6 was a commitment to halve globally deaths and injuries from road traffic accidents by 2020. London absolutely must achieve that compliance, ahead of other places or with other places. Of course that, I think, will mean a 20 mile an hour zone across most of London and that will have substantial NO_x benefits, so air pollution benefits. I think aligning all these things would be a good idea. That is what I would ask to add.

Leonie Cooper AM (Chair): I am pleased to say that after five years of campaigning for a 20 mile an hour zone across the whole of Wandsworth, I was able to sit at the Committee last week and vote in favour of it being implemented on all residential roads, not only A, B or TfL controlled roads, but that will be the whole of the borough, joining a number of other boroughs that have already taken that step. I would very much welcome seeing the whole of London going in that direction.

But moving on from my obsession with 20 mile an hour - 20 is plenty - to David, who wants to ask a few things around buses and bus pollution.

David Kurten AM: OK, thank you. Nice to see you all, thanks for coming. I just want to ask a bit about buses. Buses are responsible for a significant fraction of emissions in London. What will you do, I suppose particularly in TfL and the GLA, to try to reduce emissions from London's buses?

Alex Williams (Acting Managing Director of Planning, Transport for London): What is committed is some work with the ULEZ scheme, where all of the buses going into the ULEZ will be Euro 6 hybrids if they are double-deckers and electric if they are single-deckers. That is by 2020 and clearly those buses do not just go within the central London zone, they come in from inner or outer London to the central London zone, so they have benefits across London. The Mayor has announced that he is going to bring that forward for double-deckers to 2019. That was announced at the event at Great Ormond Street Hospital. We are in discussions

with the Mayor's Office about further enhancements to the bus fleet, because I think it is recognised that this new Mayor has a raised level of ambition on air quality issues and the buses have a key role to play in achieving that ambition. We are looking at a range of initiatives, including cleaner bus corridors. If you think about the Putney High Street example that Simon [Birkett] referred to earlier, there are several other streets across London - or many other streets across London - where they have got a similar issue, where we could target cleaner buses on those streets to help improve the air quality.

There is also work we can do in terms of retrofitting the existing fleet to reduce the emissions. We are looking at both of those. I am afraid I cannot give you a definitive figure today, but in our business plan, to be concluded this autumn, I am confident there will be extra funds put in there to help clean up the bus fleet even more than it is now.

David Kurten AM: Yes, thanks. I will just ask a little bit more about that. You talked about the clean bus corridors, particularly Putney; I suppose Brixton high street was mentioned earlier and maybe Oxford Street are areas that need these clean bus corridors. Do you have any specific emissions standards for these clean bus corridors that you might set up?

Alex Williams (Acting Managing Director of Planning, Transport for London): No specific standards. We are still working through the methodology for these corridors. We are trying to identify the first ten, and in that work, clearly you look where there is a significant air quality problem, and Putney High Street is a good example of that, but what we also want to look at is where that air quality problem is directly related to buses, because frankly, for example, if you put clean buses on the North Circular, it is not going to make a huge amount of difference to the air quality because it is such a polluted corridor already. What we want to do is to make a step-change reduction in emissions where buses are the predominant factor in causing those air quality problems. That work is underway and the Mayor will announce at some stage where the first ten are and we will introduce them in phases probably from next year, I would imagine. That is clearly a manifesto commitment that we will deliver, but as I say, it is targeting the streets where buses are causing a significant problem with air quality.

Leonie Cooper AM (Chair): Or the congestion is causing the buses to and so on. Incidentally, on Putney High Street, which we have mentioned a few times - and obviously I know it very well - it is unlikely that putting the cleaner buses on it will make that much difference until we also deal with the two taxi ranks that are situated there, with lots of taxis sitting belching out diesel fumes as well.

Alex Williams (Acting Managing Director of Planning, Transport for London): I think you are exactly right, it is not just the buses, it is about the congestion and the flow of traffic as well.

Leonie Cooper AM (Chair): It is not just the buses, yes.

David Kurten AM: Talking about retrofitting and bringing buses up to Euro 6 targets, are they fully funded at the moment?

Alex Williams (Acting Managing Director of Planning, Transport for London): We have some work going on in retrofitting now, but the proposal we have got is to accelerate that and that is what I was referring to earlier. That is something we have to look into within our business plan, to have a discussion with the Board [TfL Board] as to the scale of investment in that acceleration. Therefore I cannot give you a specific figure today, because I think there is a range of figures being debated as to what will be, but I am fairly confident there will be more retrofitting going on and funding committed to that in our business plan.

David Kurten AM: Do you have any idea of how many buses would need to be retrofitted to bring them up to these standards?

Alex Williams (Acting Managing Director of Planning, Transport for London): I cannot remember. Do you remember the specific figures?

Elliot Treharne (Air Quality Manager, GLA): Yes. In terms of our overall objective, I think it is 4,200 buses to be retrofitted to the Euro 6 standard out of a fleet of 9,000.

David Kurten AM: Thanks. Just one more question: the Mayor has talked about having a hybrid standard for 2018 for buses and then possibly upgrading to a zero emission standard in 2020. Will those standards be going through? Is that the plan?

Alex Williams (Acting Managing Director of Planning, Transport for London): It is electric buses zero emission for central London for single-deckers by 2020 and our Euro 6 hybrids by 2020, but the Mayor has announced bringing that forward to 2019. As I say, there was a debate going on internally about various options to improve the quality of the fleet and reduce the emissions from the fleet. But as I say, we will certainly come back with some initiatives in the business plan, I am sure of that.

Simon Birkett (Founder and Director, Clean Air in London): I just wanted to say that I think the best way to tackle the bus problem is to retrofit to the highest possible technical standard as many buses as quickly as possible, which might cost, let us say, £10,000 a bus or something, and put most of TfL's revenue or investment into the long-term solution, whether it is Compressed Natural Gas or zero emission, which would be the ideal solution. The worst possible thing you can do is what the previous Mayor [Boris Johnson] did, which is buy a sort of hybrid or half and half solution, which guess what, you cannot even get rid of after seven years, because it is a bespoke bus and no one else wants it. You are then lumbered with a technology which is the worst possible thing for 14 years. It is not good for TfL executives wanting to go out and have lunches with bus companies wanting to sell them buses, but it is very good, I think, for tackling this problem. Let us retrofit everything to the highest possible technology standard and then invest most of our money, 80% of it, in the long-term solution, which might be 2020, let us say, or 2022.

I think there are a number of things that are very worrying. The previous Mayor, for example, put a lot of effort into using biodiesel. Well, that is not a good answer. That is really just another form of diesel and it was done for CO₂ benefits.

Leonie Cooper AM (Chair): Yes, I do not think we are talking about moving in that direction any more.

Shaun Bailey AM: What is this technology we should be looking at in 2025 or whatever?

Simon Birkett (Founder and Director, Clean Air in London): I think zero emission, so electric or geo-fencing, which is sort of hybrid, where the buses switch from diesel to cleanest possible diesel or Compressed Natural Gas (CNG), not Liquid Petroleum Gas (LPG), into electric mode in the worst places. What I am slightly concerned about with these clean bus corridors, it might be the gas version of spraying glue in front of monitors, because if we had the cleanest buses going past the Oxford Street monitor, the Walbrook Wharf monitor, the Putney High Street monitor, the Brixton Road monitor it would look like London did not have a problem, when of course we still would have across 95% of the city. I think we need to be very careful about how this is monitored as well.

Elliot Treharne (Air Quality Manager, GLA): On that point, I will just say of course the Mayor has committed to delivering improvements across the whole city with the bus fleet. Of course, as we get those cleaner buses onstream early, it is about where you target them. It is not an alternative to taking London-wide action.

Leonie Cooper AM (Chair): Yes, so he is not talking about only doing certain routes and then stopping, no. That is just the place to start, the dirtiest routes, and then moving on from that.

Jennette Arnold OBE AM: Clare, on behalf of asthmatics in London and all over the world, thank you for all the work you do, and every other respiratory condition that you cover. Now, the Mayor has said that under his predecessor, there was too little action to warn people of air pollution episodes and, if you like, the impact that that could have on their health. We get the Government advice saying, "You, vulnerable person, should avoid living your life, really, because there is now a problem with the level of pollution" do we not? From your point of view, where do we take this awareness to? What more do people need to know about pollution episodes?

Clare Cox (Director of Communications, British Lung Foundation): We very much welcome the inclusion in the consultation you mentioned of monitoring and alerts. As long as London's air pollution is dangerously high and impacts on lung health, Londoners living and working need to receive accurate, timely and local alerts. We recently did a survey amongst predominantly patients and carers living with lung disease and 75% said that they wanted to receive that information; under 9% said they currently did. For us, that is the scale of the problem. Whilst we are obviously focusing on people with respiratory conditions, we know that air pollution poses a health risk to other people. We also know that they often see the alerts too late, so speaking to people, they say, "I already knew there was a problem because I could not get out of the bed this morning because I could not breathe". There is data to be had and to give that in a timely fashion, earlier, and the alerts need to do that. I think it needs to be accompanied by credible and clear health advice.

Again, in the survey we did as the British Lung Foundation, 85% of people said that if they had received that alert they would have just put a scarf in front of their face. Clearly that is not the answer, but there is a lack of that clear, consistent advice. There are very real things you can do and organisations like the British Lung Foundation have information on their website, but I think the alerts are one thing, but as you say, what we do not want that to do is then mean a whole group of people feel that they cannot lead their life, they cannot leave their house. We want to make sure that those alerts, which do need to be local, are accompanied by that health information, and we, as I am sure others, have various ideas about how that should be delivered. There is something about other voices, so whether it is Barts Hospital or the British Lung Foundation, but people who have the kind of voice that people might listen to around that advice being part of that.

That would require extensive monitoring if it was going really be local and I know that is something that the Mayor is looking at. I think there would also need to be a particular emphasis on the areas where we know people are at risk and children in particular, because the nature of children's lungs - they are still developing, they breathe faster and it means that they are at particular risk. I know that much has been talked about in terms of schools, but we also need to think about preschool children, who are every bit as much at risk, and there are very obvious areas where preschool children group, so we would like the Mayor to look at that. I think it also needs to be backed up by wider awareness and educational campaigns, so not just in terms of the advice you get when you get an alert, but a greater awareness about the risks of air pollution for health and what you can do to try to mitigate those risks and, as you say, not become a prisoner in your own home.

Jennette Arnold OBE AM: I know Nicky [Gavron AM] is very keen that developments and the way that we plan our environment should also include the digital technology that we can use to help our lives. Earlier this year, London Bridge, our neighbours up here in the glass area, they put up this wonderful sort of sign. That

was too late in the day for me, because I had already over-inhaled, but it basically was saying the levels of pollution. I thought what it missed was what was going to happen tomorrow, so I do not know, is it about forecasting? Because, as I say, it was great, it was going, but as you say, sufferers had already had that day.

Clare Cox (Director of Communications, British Lung Foundation): Yes. That information is available and that is what we would like. As I say, what we do not want, when we spoke to the Mayor, we speak to patients and they say, "I received my text, but I could not get out of bed, because I already knew that I could not breathe". That is my point about it being timely. I think it needs to be local, because as we are all very aware, air pollution levels vary greatly across London. But there also needs to be the, "So what? What can you do?" so not just, "You have received it. It is scary" or, "It is going to be scary tomorrow" but what can you do to try to protect your health and mitigate the impact on your health.

Jennette Arnold OBE AM: Is there more that we can do with developers in the new areas that are being built to ensure that this sort of message is in public information, not just the line, but much more visuals? Some cities do it so well, I just think that we are a little bit behind.

Clare Cox (Director of Communications, British Lung Foundation): I think it would be a very interesting idea, yes.

Jennette Arnold OBE AM: I know Simon [Birkett] is going to tell us about Berlin, where they have got huge, great screens with cartoons and caricatures giving you the message.

Clare Cox (Director of Communications, British Lung Foundation): I think that is a really interesting idea, but again, what we want is people not just to know once they are out, we want there to be the use of social media, traditional media. What we have not talked about is the fact that people with respiratory conditions, they disproportionately impact on low socioeconomic groups and the older population, not all of whom are on social media or have access to digital things, so we need to think about how those alerts would work in terms of that group of people. But yes, I think the big signs are fantastic, but particularly for the vulnerable and the 'at risk', they need to be getting that information before they have walked out the door, so they are able to walk out the door.

Leonie Cooper AM (Chair): It is disappointing to know that there are still people in London who are not following Clean Air in London on Twitter, which of course the rest of us all are. I think that is a very well-made point.

Simon Birkett (Founder and Director, Clean Air in London): There are several things we need to address. The first is annual mean levels, so day-to-day levels are well above health guidelines and the problem is if we focus just on alerts, people think there is only a problem 30 days a year when pollution is blowing back rather than towards the rest of Europe. We need to actually be telling people two things: the day-to-day level; and the alert level. The alert levels are much higher than the daily advised levels. It is quite misleading to see these green maps from the Government.

The second thing is that the vulnerable population, the at-risk population, does need to get warnings. King's College London, for example, issue a day ahead alert for the following day at noon the previous day, so you can actually get a bit more warning, and I think they offer the best alerts. I think the general population does need to hear this message, so it is not just at risk groups, because if pollution is high or very high, the general population should consider reducing activity if they feel symptoms, so we need to address the general population, "There may be an episode by the end of next week". I think there are sort of early signs that we could have a first example of this the second half of next week, but I think it is also not just about warning

people in general, but also giving people adaptation advice if they are at risk, or even the general population, like I say. We also actually want to encourage other people to reduce pollution in the first place, because it is not just about helping the victims here, we need to be addressing the people who are causing the pollution or contributing to it.

Leonie Cooper AM (Chair): Yes. That is why we have come to this area of questioning at this point, after we have discussed all the other things. I think mitigation and getting rid of the problem is very much where we want to be, absolutely.

Shaun Bailey AM: Just a very quick point: I am also asthmatic and never even looked at my asthma being linked to the environment until very recently. I know; I was busy.

Nicky Gavron AM: That is true of many people, actually.

Shaun Bailey AM: Yes, I thought my asthma was internal to me, I did not realise it came from somewhere else. But my point is, does TfL have this information? Because I know if I think the train is going to be late, I look to TfL, and my point being in this particular arena, I believe TfL would be a listened-to voice. I would listen to TfL because I come to you for all kinds of important stuff. I only bring your name up because is it you who is responsible for the monitoring?

Elliot Treharne (Air Quality Manager, GLA): I can perhaps jump in there. Monitoring that is done across London is actually done by a combination of mainly the boroughs, but also, for example, Heathrow Airport does some, TfL does some and the GLA has some sites as well. Generally speaking, not all of those boroughs, but most boroughs then provide funding to King's College London to bring all that information together in one place. We also fund things like the forecasts that Simon [Birkett] was referring to.

In terms of what the Mayor has asked TfL to do, he has asked them to come together with a package of alert proposals, which could include TfL's website, the Mayor's website here at City Hall, using social media, using various different signage and other active communication channels that we have to more comprehensively make sure that Londoners are aware of periods of very high air pollution. There is a very valid point that within that we also need to make sure that for communities or groups who have particular challenges in terms of their health that they can get targeted and appropriate information obviously in a very timely way. We have historically helped fund a service called airTEXT. I think that is one of the things we are also looking at in the context of this review that the Mayor has asked for, to work out how we can more proactively provide the right information to those vulnerable groups as well as to Londoners more generally.

Shaun Bailey AM: But my point is you will not get everyone in one consultation the right way and you need to build up. My point is this: most Londoners touch the TfL network somewhere across the day. If you had an alert, alerts would become a thing and then all the other people doing alerts, I would then look for them, they would be relevant to me. I am an asthmatic. I have had days where I have just had to stay at home and I never knew about King's College London. It will change my life. My point is putting it in front of people.

Elliot Treharne (Air Quality Manager, GLA): You are exactly right. That is the Mayor's point as well, he has said, "OK, it is great that you have put the framework in place of having this information, but how are you getting it out there? How do people know about it?" and that is why, exactly in the way you suggest, he has asked TfL to use its oomph, its reach, to communicate that message.

Alex Williams (Acting Managing Director of Planning, Transport for London): We are discussing with the Mayor's Office next week that very issue, so I am sure that we will be using our infrastructure fairly soon to

communicate that message. We have not worked out the specifics or the details, but it is a live debate, definitely.

Councillor Julian Bell (Chair, Transport and Environment Committee, London Councils): It was not on that, it was on the issue of alert days. Councils have got that power of enforcement against engine idling. The problem we have is when I ask my officers to do this is that we can only levy a £20 penalty, which is less than the cost of actually putting the officer out there to give the fine. However, we still did it. The other part of it is that when the legislation is such that you have to basically ask the driver to turn their engine off, of course when they do, then you cannot give them the ticket, you cannot then enforce. So: (1) it is not covering its costs; and (b) it is actually just a kind of information type exercise. However, boroughs are doing it, [London Borough of] Islington have done it, we [London Borough of Ealing] have done it and the City of London have actually tasked some of their civic enforcement officers on alert days to go and just do this, to actually get people to switch off their engines.

Leonie Cooper AM (Chair): The City of London have actually involved some of their other staff in dressing up in tabards and going out and talking to drivers of vehicles that have been idling at the side of the road and they have been quite forceful, if you like, in interacting with people who are idling, which has been quite interesting. I am not sure how much long-term success it has.

Nicky Gavron AM: Just very quickly, I helped to launch airTEXT, so I am very interested in this whole area of discussion. But I think what Shaun was saying, I think it is ubiquitous, almost. I keep coming across people who have respiratory problems and asthma and are totally unaware of what we are discussing here. The lack of awareness amongst London citizens is huge, whether you are very vulnerable or whether you are one of those kids whose lungs are going to be smaller because you are walking to school every day along a very polluted road. I am just wondering with TfL - it is just an idea - wherever there are bus stops and you have communication material, why can you not have countdowns and so on? Why can we not actually use some of that technology to just let people know what the air quality in that area is like?

Alex Williams (Acting Managing Director of Planning, Transport for London): That is precisely what we are looking at next week.

Nicky Gavron AM: Oh, you are going to do it?

Alex Williams (Acting Managing Director of Planning, Transport for London): We are looking at a whole range of communication channels, from our website to the on-street signage, to the signage within Tube stations as well.

Nicky Gavron AM: That is what you call it, on-street signage? OK.

Alex Williams (Acting Managing Director of Planning, Transport for London): Yes. We are looking at it. It is technically possible. We broadcast the football scores during the World Cup through these signs, so if we can do it for that, we can do it for other things, I think.

Leonie Cooper AM (Chair): What do you think the health impact of that was then on Londoners or there is none discernible?

Alex Williams (Acting Managing Director of Planning, Transport for London): It was sponsored, so that was why we did it.

Leonie Cooper AM (Chair): That is interesting. We have had a number of suggestions here, and obviously some other people have said that when the pollen count is done on the weather that there should also be something about the likely air quality for the next day at the same time, so there have been a number of different suggestions that have come out about how to more effectively communicate. I would not wish ill-health on anybody, but perhaps there is no cloud that does not have some form of silver lining, in the sense that because the Mayor himself has developed adult onset asthma as a result of poor air quality, and the fact that so many people – like Shaun [Bailey AM], who has just said the same – are becoming aware of the link between adult onset asthma and poor air quality.

Caroline Russell AM (Deputy Chair): Just very briefly, but picking up on this whole issue, Shaun, I am very sorry you have asthma, but really it is wonderful to see you kind of seeing all the bits fit together. I think what TfL could possibly be doing is not only telling everyone when the area is bad and when their own health might be bad, but also trying to get the general population to understand that choosing to use a car for a short journey to the local shops may actually be impacting on the health of their neighbours, their fellow residents and other people and themselves. It is not about wagging the finger at people, but if we could get a sense of collective action to try to clean up our air in London, where if we can get a collective understanding that this ‘dieselfication’ of the fleet that has happened over the last ten, 15 years in particular that has really had an impact on people’s health, that people can actually see that they can take personal action to help reduce that air pollution. It might help with all the other messages about trying to get people to change, to get rid of their car and maybe go to using a car club and a bike and the bus.

Alex Williams (Acting Managing Director of Planning, Transport for London): I agree entirely, and I think that one of the key things we need to look at is not just telling people when there is poor air quality, but making sure it is not counterproductive in terms of what people choose to do in response to that. So, “Poor air quality, please drive your car less”, for example, that kind of thing might become a secondary message that goes with the air quality alert. But as I say, it is a live debate. We can feed this into the live debate next week with the Mayor’s Office.

Shaun Bailey AM: Do, because this could become like the weather forecast, you plan your day around the fact you need an umbrella or not. All of the proposals which we have spoken about today will be far easier to sell to Londoners just because they have heard this message. The ULEZ makes much more sense to me, because I will be aware of the fact that our area is so poor, so readily.

Simon Birkett (Founder and Director, Clean Air in London): I am very encouraged the new Mayor is proactively going out and telling people about this. Over eight years, I think I got Boris [Johnson, former Mayor of London] to issue two tweets with air pollution warnings, so I think we should not be afraid about getting this message out. I think it just changes the whole framing of the debate and it is much more positive in terms of what we are going to do about it, so please pile in. The City Air app, which is by the City of London, gives advice on routes as well as these daily alerts. Thank you.

Leonie Cooper AM (Chair): I think it is arguable that you would almost find it difficult to put out too much information to assist people, but I think I am actually going to draw that part of the discussion about notifying people about air pollution incidents to a close and then move on to the last area that we wanted to explore with you, which is more of an open question about air pollution that might result from a wide range of other areas.

But just before we move into that, I would like welcome the Grey Court School, the Richmond Park Academy, the Kingston Grammar School, Teddington School, the Surbiton Girls’ School, the Tiffin School and the Christ’s

School. I hope I have got all of those right. Have I missed anyone out? Twyford? Very nice to have you here as well, very welcome.

Nicky Gavron AM: Elliot, you said way back, about an hour and a half ago, that there was very little or no regulation for other sources of polluting emissions. We have talked quite a lot in the Environment Committee in the past about construction emissions, so we can come back to that maybe if there is time, Chair, but I thought I might focus on the emissions that come from burning. We have all been talking about the new Clean Air Act, and as Simon said, the original Clean Air Act was really to stop the emissions in urban areas from the burning of coal. I am very aware that in urban areas we burn gas, we burn wood and we burn waste and I wondered if you could start us off, Elliot, by just talking about the burning of gas and what the emissions are that come from that. I think we should look at our own domestic burning of gas and then talk about perhaps our very ambitious plans, the GLA and the Mayor's plans, for decentralised energy and whether there are ways that we can decentralise energy, combined heat, power and cooling, which is obviously going to be natural gas until there is a transition to renewable gas.

Elliot Treharne (Air Quality Manager, GLA): Yes, absolutely, it is a very good point and it is a key point that the Mayor's Office has taken on board as well. While the initial focus has been on some of the transport measures we talked about today, you will see that there are questions in the consultation about the non-transport kind of impacts as well. On the specific example of gas, domestic and commercial gas use is around 20% of NOx emissions in London, so it is a very considerable source. It has historically been quite difficult to target them. We have tried to use Government funding that has been available to support the retrofit of buildings, but of course there are a lot of boilers in London which are relatively old and that means there is a lot of activity that we need to do in order to address those.

The planning system, as you said, provides perhaps the most powerful tool we have in the long term to address that through moving towards decentralised energy, where we actually recycle a lot of the heat that we generate in the city from things like electricity substations or Tube stations or from any of that kind of industrial activity that we have. In the short term, there is an issue to manage around the use of gas-fired Combined Heat and Power (CHP) systems and one of the things that the Mayor has committed to do in the new London Plan is to make sure that we are aiming for that kind of combined solution which is moving towards a solution for tackling gas leaks in London.

Nicky Gavron AM: Sorry, combined, did you say?

Elliot Treharne (Air Quality Manager, GLA): Moving towards a policy framework which will not promote the use of gas-fired CHP, unless it is properly and fully mitigated, which is something that does not currently necessarily happen.

Nicky Gavron AM: That is good. Can you just tell me, if as a householder I change my boiler, I now have to have a different kind of boiler, right?

Elliot Treharne (Air Quality Manager, GLA): You do not have to, but we would encourage you to have an ultra-low NOx boiler, which is at no additional cost.

Nicky Gavron AM: Is that different from a condensing boiler?

Elliot Treharne (Air Quality Manager, GLA): It depends. It depends on the efficiency. Basically an ultra-low NOx boiler is a standard that we use, which talks about the NOx emissions from that. That is something that we can mandate through the planning system.

Nicky Gavron AM: I think we should, because I think people are very unaware of these boilers.

Elliot Treharne (Air Quality Manager, GLA): Yes, exactly. Many people, when you talk about air pollution, think that it is primarily - in fact, only - a transport issue, when as you can see from the construction emissions, from boiler emissions in the home, from industrial activity, obviously from aviation as well, as another good example, you have a full range of wider impacts.

Nicky Gavron AM: But the point is people are switching their boilers thinking that they are getting a better boiler and that it will not have any emissions, but you are saying that it could have emissions.

Elliot Treharne (Air Quality Manager, GLA): Most people, if they are switching to a category A boiler, will be getting a very efficient boiler with much lower emissions than if they were replacing an older G-rated boiler, for example. It is a positive thing, but you are right, there is a point about messaging, there is a point about standards in terms of the London Plan to make sure that we are encouraging the very, very, very best technologies. Increasingly, what there are opportunities around - and this is something we are exploring for the London Plan as well - is how we actually promote renewable boilers, so this is things ranging from even hydrogen technologies, which is something for commercial properties that we are very keen to start encouraging through the Plan as well.

Nicky Gavron AM: That is good to hear. Just say something about wood-burning, because more and more people are switching.

Elliot Treharne (Air Quality Manager, GLA): This is a specific issue in terms of --

Nicky Gavron AM: Domestic wood-burning.

Elliot Treharne (Air Quality Manager, GLA): Yes, so obviously it has become quite fashionable for people to burn wood or other material in a domestic fire or a in a chiminea or something along those lines. Of course the vast majority of London is a smoke control zone, where there are restrictions on the type of appliance and the type of fuel you can actually use to burn. There are issues with enforcement. Wandsworth actually recently has redesignated its entire borough as a smoke control zone and has actually increased enforcement. That is the kind of borough-led activity that we would like to encourage and we support through the statutory local air quality management process.

Simon Birkett (Founder and Director, Clean Air in London): King's College London says that 5% to 10% of particle levels over London are what they describe as illegal recreational wood-burning, which is Friday and Saturday night out of fireplaces, because people think it is being green. But the point I was going to make is actually on the gas boilers. There has not been joined-up thinking between the energy strategy and the air pollution strategy. Clean Air in London recently was objecting to a development in what the Department for Environment and Rural Affairs (Defra) says will be the second-most polluted road in the country in 2020, where the developer was proposing to put in two CHP plants and two gas boilers in the worst place for CO₂ in the country in 2020. That is because they are getting bonus points on the energy bit without thinking about this bit. It is not the developer; that is the way the rules are working. I do think we need some proper thinking on this really very urgently.

Somebody told me - I have not verified this myself - that NO_x emissions from CHP in Kensington & Chelsea could exceed total transport emissions within a small number of years. Now, that is just swapping one problem for another. There is actually a Government consultation out at the moment about CHP, where they basically

refer to current biomass output, which is sort of wood-burning in cities, going from 20% to 30% after 2030, incineration rising to 20% penetration, and that it will result in £300 million worth of debts, basically. They say that is fine and a good thing. Now, this is completely potty.

Leonie Cooper AM (Chair): It sounds about as sensible as tackling CO₂ emissions by asking everyone to drive diesel cars.

Simon Birkett (Founder and Director, Clean Air in London): It is exactly the same thing. Can I just make a point quickly about taxis, because we have not talked specifically about those, unless we are going to come on to that?

Leonie Cooper AM (Chair): You can, certainly. I made a small point about taxis in Putney High Street, but we will just come back to Nicky.

Nicky Gavron AM: Can we just finish on the burning point? I wanted to just press Elliot and perhaps Simon [Birkett] and anyone else who wants to come in on incineration, because we have just increased incineration capacity in London. We know that with incinerators - I cannot quote you chapter and verse, but I have looked it up at different times in the past - there are a whole range of pollutants that result from incineration. What we have is really mass burn, because of the black bags, a lot of the residual waste and so on. I am just wondering, Elliot first, whether the London Plan is going to tackle this.

Elliot Treharne (Air Quality Manager, GLA): I think it is a point very well-made. I think much as policy-makers have learnt a lot about diesel vehicles and they thought they were doing the right thing in the past, when we look back at the London Plan and some of things we have done previously, I think we now look at it and say, "Oh, that needs to be slightly improved". We have a great opportunity, doing a new Plan with a Mayor that understands not just about the importance of tackling climate change, but also how urgent the need to tackle air pollution is. I think we are going to have a much more integrated strategy in terms of what we are trying to do on the CO₂ side and on the air quality side with things like CHP.

I think that extends to what we do in terms of incinerators and the broader policy that we have in the London Plan there. I think there are going to be a number of conversations which have just started with the London Plan team as we try to map out the key policies that will be in that by the end of this year. We are very alive to that. We are taking that all into consideration. Simon's [Birkett] point was very well made and we are hoping that we will have a much improved London Plan as a result.

Nicky Gavron AM: Excellent. Over to taxis, if you want.

Leonie Cooper AM (Chair): Actually, what I was going to say is I think we have gone through all the different areas that we had picked out and identified separately that we wanted to ask you about. What we were hoping to get from today was much more detail on the Mayor's proposals and to tease out what some of the sort of problems and issues and challenges might be for those proposals. That will then inform, if we decide - as well as individually - to put back something as a Committee to the consultation that is going on at the moment. Also we wanted to get an update from Simon [Alcock] on where we were with the Supreme Court challenge on the UK national air quality plan. I think we have explored that very thoroughly with you, but I would just like to give you all the opportunity, if you want to, to say a couple of words to wrap up, which in Simon's case might be on taxis or it might be on other areas. Can I just start with Julian and then just work around? Do not feel that you must say something, but if there is something that you feel that you have not yet said that would be helpful, do please dive in.

Councillor Julian Bell (Chair, Transport and Environment Committee, London Councils): I was going to say something about trying to reduce the number of deliveries to construction sites and that whole problem there. A couple of things: we have got our housing crisis and we need to build more homes more quickly. One of the interesting things that the industry is now doing is actually preassembling homes in factories out of London, but what that means in practical terms is that it is quicker and it is cheaper, but it also means that there are fewer lorry deliveries to the construction site as well. It is a win/win. Anything that we can do to encourage that is important. The other thing is a number of North London boroughs have developed a consolidated freight hub where they will work together to consolidate down from, say, 1,000 deliveries to 100 deliveries and coordinate to this one hub. Again, that reduces the number of vehicle movements and all of the emissions that go with it.

Leonie Cooper AM (Chair): A really useful point to add is it is definitely the case that off-site construction reduces vehicle movements, but also the idea of hubs and reducing generally loading and vehicles on the road that are parked. One of the other issues in Putney High Street, is that there are not just the two taxi ranks, but also there is a large Tesco who have now been fined - I think by the end of January this year - about four times by the council. That then of course causes congestion and then people blame the buses, but in fact it is the Tesco. Elliot, is there anything that you would like to add? Thank you so much for all your contributions today.

Elliot Treharne (Air Quality Manager, GLA): The first thing to say is that the very clear message we have received from the Mayor is what an urgent problem this is and how bold we must be in tackling it. Hopefully that has come across today in terms of the package of measures that the Mayor has proposed. That said, as has hopefully also come out in the discussion, we do not think that is necessarily it. We do not think we know everything. We recognise that there are other ideas and that the Mayor will want to consider those as part of the consultation. It has been a very productive afternoon for us and we hope that you will feed back to that consultation and other people will so that we can take some of those ideas forward.

Leonie Cooper AM (Chair): Thank you. Alex, is there anything that you would like to add?

Alex Williams (Acting Managing Director of Planning, Transport for London): Very similar really. The raised level of ambition from the Mayor is really welcome and we are working at break-neck speed to try to respond to that raised level of ambition. There probably are quite a few questions today where we genuinely do not know the answer, but that does reflect the fact that it is so fast-moving. To get where we are now and to get the T-Charge consultation out now and all the other stuff out there, there is a lot of work behind the scenes, but there is a lot more work to do and more announcements to be made, particularly on buses and clean bus corridors and retrofit work.

Leonie Cooper AM (Chair): We appreciate that we have been pushing both you and Elliot [Treharne] to answer some questions that we thought you may not at this point have answers to. I am quite sure that the Committee will want to return to these issues again.

Alex Williams (Acting Managing Director of Planning, Transport for London): Yes, we are happy to.

Leonie Cooper AM (Chair): No doubt we will be inviting you both to come back and tell us where you got to at this point.

Alex Williams (Acting Managing Director of Planning, Transport for London): Yes, we would be happy to.

Leonie Cooper AM (Chair): Thank you.

Simon Alcock (Communications and Public Affairs Manager, ClientEarth): Thank you very much for having me here. It has been a very good discussion, very welcome. At this stage it is clear - not least from the two answers just now - that all options need to be on the table and we need to be guided by the evidence and what is going to work and not just something that we think will work. That is really reassuring to hear and we welcome the bold nature and the speed that things are going. It is fantastic really. Thanks for giving me a chance to update you on the case. I hope you will support it and get behind this call for a new Clean Air Act and hopefully we can get some extra progress on the national side as well. Thank you.

Leonie Cooper AM (Chair): Same to you, as Julian [Bell], thank you very much for coming in and giving us the other perspective from beyond the GLA family. That has been really helpful to have you here. Obviously, Simon [Birkett] and Clare [Cox] the same. Simon, just a few points from you as well?

Simon Birkett (Founder and Director, Clean Air in London): Yes. We need to keep our eye on the maintenance replacement of monitors in boroughs, because a lot of them are 20 years old and will soon stop working like the Oxford Street one did for the first week this year.

Leonie Cooper AM (Chair): Ouch.

Simon Birkett (Founder and Director, Clean Air in London): That is important, because otherwise we will be blind. The second thing is tube dust, where the levels are very high and the best indicator of health risk is just particle mass concentration. I am very concerned about that and I have been failing to make progress with TfL on that issue over the last nine months. Third thing, just on taxis, just to disclose an interest, the Licenced Taxi Drivers Association is a sponsor of Clean Air in London. We get no money, but they have handed out a couple of million taxi receipts for us. That is because the best kept secret in London in my mind is that the 25 foot turning circle requirement means that a taxi driver who wants to work has to buy one or other of two diesel vehicles. What we need to do is identify two packages: black cabs provide accessibility - forget about the turning circle requirement - they provide accessibility for people, the wheelchair accessibility for which they ought to be allowed to use the bus lane and avoid the Congestion Charge. The minicabs, I think it is absolutely shameful that they are not matching the taxi standard until 2023 or something. They ought to be subject to the same standards as taxis in 2018. That standard should be tightened. It should be 50 miles on electric and 100 miles on electric by 2020. Private Hire Vehicles (PHV), like minicabs, should not be allowed in bus lanes and should not have the Congestion Charge exemption because they do not provide the accessibility benefit. Just a quick mention, I chair a neighbourhood forum and we are working very hard on that. They can offer quite a lot of change from a grass roots level. Finally I would just close by saying that we have talked a lot about the challenges today but I would reiterate the closing comments of really all the others here, which is there is a great opportunity to re-engineer our city in the way that we did so successfully 60 years ago. We must grasp that opportunity. I would encourage the Mayor to be more ambitious. Even though he has started well he needs to really ramp up that ambition level, not just get pushed back from it. Let's grasp the opportunity, please.

Leonie Cooper AM (Chair): That will make Elliot [Treharne] and Alex [Williams] feel very ill if the Mayor becomes even more ambitious and wants all these things implemented by the end of this year.

Clare Cox (Director of Communications, British Lung Foundation): Thank you for inviting us here. We, as everybody else seems to, welcome the Mayor's consultation and the level of ambition. On behalf of at least 1.1 million people living in London it is very welcome. One of the things we have touched on briefly, but I would like if possible for the Committee to give more thought to, is the issue of health inequalities in air

pollution. We have talked a little bit about that relationship and the causal relation is not clear. We know that people living in the most deprived boroughs in London are twice as likely to die of lung cancer, asthma and other respiratory diseases. Clearly there are a number of factors that cause that, not just air pollution, but I think it would be one area that it would be great to give more thought to and particularly as various members of the Committee have said, we need to be careful that those are not the people who are disproportionately contributing to paying for the solution.

Leonie Cooper AM (Chair): That is a very welcome reminder at the end there, Clare, thank you very much. And thank you to everybody for coming along today, we will be making an effort to try and pull something together from us jointly.