



Transport Committee

Oral evidence: [National Bus Strategy: one year on](#),
HC 161

Wednesday 8 June 2022

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[Watch the meeting](#)

Members present: Huw Merriman (Chair); Mr Ben Bradshaw; Ruth Cadbury; Simon Jupp; Chris Loder; Karl McCartney; Grahame Morris; Greg Smith; Christian Wakeford.

Questions 269–312

Witnesses

II: Peter Freedman, Chief Marketing and Sustainability Officer, Switch Mobility; and Tanya Sinclair, Senior Policy Director for Europe, ChargePoint.

Written evidence from witnesses:

- [Switch Mobility](#)
- [ChargePoint](#)



Examination of witnesses

Witnesses: Peter Freedman and Tanya Sinclair.

Q269 **Chair:** For the record, could I ask you to introduce yourselves, and where you are from?

Peter Freedman: I am Pete Freeman, chief marketing sustainability officer at Switch Mobility.

Tanya Sinclair: I am Tanya Sinclair, the senior policy director for Europe for ChargePoint.

Q270 **Chair:** I declare an interest. I know Tanya. Peter, we will get to know you.

I am sorry we are late. We have segued in neatly to you because Peter represents the bus manufacturers and Tanya represents the infrastructure—the charge points. You heard us touching on progress in decarbonising the fleet. In this inquiry we have also touched on the 4,000 zero-emission buses. We were written to by the Secretary of State to clarify that 51 appear to be on the road.

We are keen to find out during this session exactly what progress is, why it feels slow and whether that is down to infrastructure innovation or funding and manufacturing. Peter, as an opener, how would you say the transition towards zero-emission buses has been so far?

Peter Freedman: It is interesting for us. To put it in context, about 18 months ago we moved to being a solely zero-emission manufacturer. We stopped taking diesel orders as a result of the bus strategy and the plans. On the transition that we have seen, the plans and the ambition for the 4,000 buses is good. The ZEBRA funding has the right intentions because it minimises the cost difference between the diesel bus and the electric bus up front.

As a manufacturer, we have seen that the pace of that for the manufacturing industry in the UK is not as quick as we would like. To put it in context, certainly up until about six weeks ago none of the ZEBRA funding released to operators had actually turned into orders for UK manufacturers. That is obviously a concern for us when we have made the switch from diesel to electric to align to the bus strategy and decarbonisation. We are therefore relying either on orders through TfL operators or orders out of the country to be able to fill our factories at the moment.

Q271 **Chair:** Why is that?

Peter Freedman: It is a bit of a perfect storm. The point made earlier about ridership means that operators are probably reluctant to push the button on actually ordering the buses. It is a significant investment. Even though the ZEBRA funding closes the gap between the cost of a diesel bus up front and the cost of an electric bus, they have to make their



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business models work. Therefore, they are in the position where they are looking at, “When can I get to a level of ridership and make my revenues work to be able to go and order my electric buses with confidence?” They are still the ones who are funding the buses, fundamentally. They are still putting in a significant amount of investment.

Q272 Chair: When the Government say they are funding 4,000 buses, are they actually just funding the differential between the replacement of a diesel with a brand-new electric?

Peter Freedman: Yes, some of the ZEBRA funding is—exactly. There are obviously different funding grants in terms of the BSOG, which funds some of the running of the buses, but the operators are still having to put in significant investment to actually order these buses from us.

The other point on UK manufacturing is that there are also orders that go to manufacturers outside the UK. That means that, as a UK manufacturer, we are obviously keen that the ZEBRA funding is put towards and supports UK manufacturers. We have a very credible bus industry. We have three strong manufacturers across Alexander Dennis, Wrightbus and Switch. We have some upcoming players. We have manufacturers winning orders outside the UK. We believe we are well positioned to deliver in the UK as well.

Q273 Chair: The bus operators themselves are not putting in the new orders, which means, effectively, that they do not then put in the order for the alternative bus where they get the top-up from the Government’s grant.

Peter Freedman: Correct. I come back to the perfect storm. The bigger operators have basically stopped ordering new diesel buses because there are not the incentives behind it. There is no benefit in investing when we are looking at the end of diesel sales. Then, with lower ridership, they are all deciding at what point they start pushing the button on ordering electric buses. That leaves some of the manufacturers in a position where they are not taking diesel orders, because it is not the strategy and it is not long term, but they are not getting the electric orders either, because it is a significant investment up front for operators and they are trying to justify putting those new orders in now. That is probably why we see only 2% or 3% of the fleet being electric at the moment.

Q274 Chair: The Government’s manifesto pledge was to deliver 4,000 zero-emission buses by the next election. Do you believe that will be met? For these purposes, let’s work on the basis that the election will be in five years, so December 2024. At the current pace that is not going to be met, but do you believe it will be, just looking at the advance order book?

Peter Freedman: No, not in my opinion. Let’s say there is funding released for up to 2,000 buses; when you take the Coventry all-electric bus scheme, the standard-track ZEBRA scheme and the fast-track ZEBRA scheme, with 17 in total, that probably gets you to about 2,000 buses. When we look at the cadence of those ZEBRA schemes, the operators are



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probably spreading their orders and deliveries out from the end of this year, as colleagues spoke about earlier, to about Q1 in 2024.

There are probably 2,000 buses not yet being funded or ordered. Given that operators are already looking at a timeline to deliver the first 2,000 by Q1 or Q2 2024, it is a serious challenge to deliver 4,000 by the next election.

Q275 **Chair:** The interesting thing is that it is a commitment that the Government will deliver them, but in fact there is a contingency that the bus service operators actually have to put the order in. If they decide not to, the Government cannot control the process, from what you are saying to us.

Peter Freedman: Correct. Ultimately, it is reliant on the operators. Whether the Government control the speed at which that ZEBRA funding is deployed, and the speed at which the operators have to place orders with the manufacturers for that ZEBRA funding to still stand, is probably a debate. That is something that could potentially speed up the transition to electrification, but at the moment the pace of change does not align with meeting the objective of 4,000 buses on the road. There is a difference between ordered and on the road, because the lead time is obviously a good six to nine months from an order to a vehicle being on the road.

Chair: Karl is itching to come in, but I was going to ask Tanya, who has not said anything.

Q276 **Karl McCartney:** I will be very quick. Bus is a catch-all word. What constitutes a bus in the phraseology that you have just been using about those 4,000 buses? What are the parameters of what a bus is? Is it a minibus-sized bus, a full 50-seater or a double-decker?

Peter Freedman: For me, it is probably anything from about an 8-metre bus, which is the smallest an operator would use in a city normally, up to an 11 or 12-metre single or double-decker. That is what I would quantify as a bus.

Karl McCartney: I just wanted it on the record. Thank you.

Q277 **Chair:** It is a very good point. Thank you.

Tanya, Ruth is going to ask you about the infrastructure challenges. I wanted you to come in on what Peter said, and what you heard from the other panel about where we might be struggling to deliver on this.

Tanya Sinclair: The really interesting thing about the comments from Peter and the other panellists is that the funding available to operators and vehicle manufacturers is directed solely at the vehicles themselves. What is really important in the electrification process or transition to an electric bus fleet is the building and cost of the infrastructure. That comes in four specific buckets: the physical infrastructure, or the chargers themselves; the software that sits behind that, which is an ongoing



operating cost, as are the support and maintenance services for those chargers; and, finally, what we lump together as make-ready services at your depot—maybe repositioning how vehicles move around it and so on, grid connections and works that may be needed to upgrade the depot itself to make buses ready for electrification.

Chair: I am not going to go further into that or I will be trampling all over your evidence. I will bring Ruth in.

Q278 **Ruth Cadbury:** Tanya, I am going to come back to you on the infrastructure issues, but I want to pick up something with Peter. What, in your view, is the single thing that could make a difference to increase the number of orders coming in from operators for zero-emission buses?

Peter Freedman: In the short term, a timeline for using the ZEBRA funding. At the moment it is not particularly time-bound. That obviously means it continues to extend, extend and extend. It comes back to the point I made earlier about the semantics of what deliver means. For us, as a manufacturer, it is having an order in place and ultimately delivering that vehicle. ZEBRA funding ultimately does not come to the manufacturer. We have no funding in this. We are relying on building the vehicle and selling it to go on the road.

Q279 **Ruth Cadbury:** Is the tranche-based format of the ZEBRA funding one of the challenges?

Peter Freedman: Certainty is important for us in planning. It goes to the point about what happens to the next 2,000. When are they going to be in place? That allows certainty in terms of scale-up and investment.

Q280 **Ruth Cadbury:** Would different forms of bus ownership, such as Mobility as a Service, help at all?

Peter Freedman: We think it would. I will give you an example. We run Mobility as a Service in India—we have an arm in India. We do everything but the ticketing. It works out there at the moment because the authorities simply pay per kilometre. We take the capex and move it to an opex model for the authority. It is lower investment. They pay per kilometre and it reduces their risk.

Q281 **Ruth Cadbury:** Thank you; that is helpful. Finally, on the rate of roll-out of ZEBs, how do we compare with other competitor countries? Are they rolling out quicker and, if so, what is one fundamental difference in what they are doing that we are not?

Peter Freedman: In Europe there is a positive. I was in Paris yesterday at a show and I think the certainty around the first 2,000 buses is good. That is leading manufacturers to invest in electric vehicles, as we need to. In countries—I use India as an example because I know it—the fact that they are using—

Ruth Cadbury: Where?



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Peter Freedman: In India. We have a secondary operation out there. Because they are investing significantly in electric buses, obviously partly because of the scale, the Mobility as a Service model makes it easier for them up front because it is lower investment.

Ruth Cadbury: Thank you.

Q282 **Mr Bradshaw:** Are there any examples of BSIPs or enhanced partnerships being used to deliver zero emissions?

Peter Freedman: I think in some of the BSIPs that were recently introduced, those areas have plans to use some of that to invest in electric buses. Again, for us as a manufacturer, that flows through the operator, and then it is the operator's decision to flow through to us.

Q283 **Mr Bradshaw:** Do you happen to know where?

Peter Freedman: I don't, off the top of my head, I am afraid.

Q284 **Mr Bradshaw:** Tanya?

Tanya Sinclair: No. Much like Peter, we are a technology supplier to the operator.

Q285 **Mr Bradshaw:** Do you think more operators could be using these initiatives more creatively to deliver on zero emissions?

Tanya Sinclair: I do not have an encyclopaedic knowledge of all the BSIPs across the piece, but what I would say from the ones I have seen is that there is definitely an opportunity to build in more attention to data, to be able to inform where the future of the decarbonisation plan might go. Specifically, in ChargePoint we have a telematics and data solution that we sell to operating companies, vehicle manufacturers and so on. At a granular level, it can break down route data, driver data and performance data, which can then inform when and how fast you can electrify or decarbonise your fleet.

Q286 **Mr Bradshaw:** In your view, when should the Government end the sale of non-ZEB buses?

Tanya Sinclair: The first thing to say is that that date needs to be made clear. We have just closed the second period of consultation. It depends: city buses and urban routes are ready to go electric now, but it is very dependent on the vehicle technology for longer-distance routes. I defer to Peter on that.

Peter Freedman: That is fair in terms of city buses. It should be as soon as feasible, from a manufacturer's perspective.

Q287 **Mr Bradshaw:** Do you have an idea about what feasible means in terms of a year?

Peter Freedman: From a manufacturer's perspective on scale-up, it could be 2025. The capability is there to supply electric buses to that



scale. The operators will have talked earlier about their feasibility, but for manufacturers it should be as early as feasible.

Q288 **Mr Bradshaw:** What would the consequences be, in both your views, of an earlier or later date in terms of the overall impact?

Peter Freedman: The longer it extends for a manufacturer running parallel technologies—diesel or hybrid and electric—it normally means you hold more inventory, and you are developing two different technologies. It is therefore more expensive. You slow the pace at which you bring down the cost of electric vehicles. The quicker we move at scale, the quicker the up-front cost will come down.

Tanya Sinclair: There are two sides to it. You want operating companies to go in with full knowledge and understanding, and confidence in the technology that they are procuring. That means building knowledge through data of how routes operate and which are ready to electrify first, and so on, and to be able then to electrify with confidence. That said, we cannot wait around for ever. We are not just talking about commercial models when we talk about bus decarbonisation. There are public health and air-quality impacts as well. There is a balance between those two factors.

Q289 **Mr Bradshaw:** Is there a place—you may not be aware of it—in England that is leading the way in all of this, in your view?

Peter Freedman: It is partly driven by Government, obviously, but Coventry going to all-electric bus is a significant jump. It will be a real test of whether that can work properly just with zero-emission buses in one city.

Tanya Sinclair: I can point to two examples. Nottingham have really built data into their understanding of how and when individual routes can go electric. On the charging side, we have just supported Translink in Belfast, who have electrified two depots.

Mr Bradshaw: Thank you; that is really helpful.

Q290 **Chair:** I will just put this to Peter, because otherwise I am going to end up trampling over Ruth's territory, which is where we are going to keep you busy, Tanya, on infrastructure.

Peter, in terms of challenges, you have talked about funding the pipeline, which obviously is a key challenge. Do you have other challenges in manufacturing right now? Is it labour shortages or the cost of materials not matching what the Government's initial money was going to be? Could you illuminate us on that side?

Peter Freedman: Yes. Labour is not an issue for us. That is partly because, without orders, scaling up is not the issue right now. Raw material cost is an issue, whether it be steel, minerals or batteries. That is driving up our costs of producing vehicles and it is minimising the margins on the vehicles. Electric buses are expensive up front, so we do



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not want to drive the costs of that up or disincentivise it. It squeezes the margins in terms of supply of raw materials.

Q291 **Chair:** We have said that there are not enough orders coming through and that they are contingent on the bus operators, but is that money not going to stretch far enough to deliver 4,000 anyway because the costs have gone up?

Peter Freedman: Not with the current funding that is allocated—I don't believe it will. The one thing we have to remember is that we are talking a lot about the up-front cost. Actually, over its lifetime an electric bus should be cheaper, especially with diesel costs now. The balance is how we manage incentivising up front with recognising that over a 12 or 15-year life it should be cheaper for an operator to run an electric bus.

Q292 **Chair:** Cheaper, greener, cleaner.

Peter Freedman: Correct.

Chair: Let's talk about infrastructure. This is going to provoke quite a lot of questions after Ruth has started.

Ruth Cadbury: Wasn't Christian going to come in?

Chair: He was in fact, and I have just trampled all over his section. It's going well. Christian, do you want to follow up any of that?

Christian Wakeford: It's a great first meeting, Chair. Both my questions have been asked.

Chair: I put myself in square brackets. That's the way it works. Then I try to replace myself with volunteers. Unfortunately, I didn't sack myself.

Q293 **Christian Wakeford:** We have seen a drastic fall in the number of commissions from what was on average about 2,500 a year to just under 1,400 from 2021. Is this a drop on the supply side or the demand side? If we are trying to push ZEBs incredibly hard, surely you would be expecting that to go higher rather than lower.

Peter Freedman: As you say, 2021 was the lowest registration on record for buses. For us, we see it squarely as a demand issue. There are challenges around specific supply areas, but the constraint for us right now is definitely demand.

Q294 **Christian Wakeford:** With regard to the demand, Peter, what are you doing at Switch about investing in domestic manufacture? On the back of the Brexit issues that we have all been discussing, with customs and the workforce, trying to manufacture onshore certainly has its benefits but also cost implications.

Peter Freedman: Definitely. As part of the trade visit to India that the Prime Minister was involved in, we announced an investment of around £300 million spread across the UK and India. About half of that is in the UK. That is to support not only bus manufacture but electric light commercial vehicles, which we also deliver. It is not all buses. We have



pretty aggressive and significant plans to invest in the UK and continue to develop the facility we have near Leeds.

It comes back to the point about certainty. We are not going to invest as a purely electric company unless there is certainty of orders coming through. That is why, from our perspective, the sooner there can be a drive towards only zero-emission sales, the better.

Q295 Christian Wakeford: While we obviously want to invest in greener vehicles, what more can be done with regard to investing greener within the supply chain? I am thinking predominantly of green steel as well.

Peter Freedman: It is a very interesting point. As an aside, we were recently certified as carbon neutral because we take it really seriously. There probably aren't any bus manufacturers in the world that are carbon neutral. We look beyond just zero tailpipe emissions. I think that is a really important discussion.

How do you localise the supply chain to take out the air freight and sea freight that is required to move your logistics in-house? How do you work to reduce not just tailpipe emissions but brake emissions and emissions from tyres? One thing that can be done in reaching the net-zero objectives is that, when funding is delivered, the next step is how you go beyond just zero tailpipe emissions. That helps with localisation. It helps with investment in the UK. Should there be a UK content rule for buses that are ordered through the ZEBRA scheme? Once you start doing that, you will incentivise investment in the UK and incentivise manufacturers like us to do that.

Q296 Christian Wakeford: What are we learning from international partners and international markets? At the same time, what are we doing differently to lead the way?

Peter Freedman: There is a point about a long-term view and how you give certainty to a manufacturer. I know I have said this a few times. We will scale up and invest when we are confident that there is a three, four or five-year pipeline of orders. That is what we probably see in other countries. In some of Europe, as an example, there are longer-term schemes to transition their electric bus fleet. They may not have done it as quickly at the start—that is where I think there has been a little bit of success with the early funding—but there is a longer-term vision for it, and concrete funding and a timeline for manufacturers.

Christian Wakeford: Thank you.

Chair: Thank you, Christian. We would not have got that evidence without that sort of teamwork and spontaneity. Let's go to Ruth and infrastructure.

Q297 Ruth Cadbury: I have a few questions for Tanya. It was really helpful to have the four-part elements of infrastructure. When we think of moving to ZEBs we just think of getting the power lines in, but software,



maintenance and having the depots ready are of course also important. How are we doing on getting the infrastructure in place for ZEBs? Is progress running ahead or behind the roll-out of new vehicles? What is likely to happen in the next two or three years?

Tanya Sinclair: Generally speaking, it happens in tandem. Along with the procurement of the buses, there is the procurement of the infrastructure, and all the associated works that I have described will happen alongside that. We have already heard from others about whether we think that whole process is going quickly or not so much.

What happens in each individual case, when it comes to the electrification of a depot and putting in the infrastructure, is a real bespoke piece of work. It is a piece of consultancy as well as a piece of installation of infrastructure and civil engineering. It can be quite a long drawn-out, multi-partner activity involving distribution network operators, local authorities, the operating companies, vehicle manufacturers and all sorts of others involved in the delivery of the project. We, as technology suppliers, do our best to keep everything on track, but it is necessarily a complex piece of work.

Q298 **Ruth Cadbury:** Are there different challenges, and is it happening at a different pace in different types of areas—rural or urban—or in different parts of the country, whether it is a metropolitan area or has a mayoral set-up or otherwise?

Tanya Sinclair: I will say up front that we have not done analysis to that level, but the demand and appetite that we see is mostly from urban locations and cities. I think that is a consequence of the fact that the buses and routes are the readiest to electrify there, due to the length that they run and so on.

Q299 **Ruth Cadbury:** Are the Government doing enough to support the roll-out of infrastructure to enable more ZEBs?

Tanya Sinclair: If you look at the programme of investment that Governments have delivered over the last decade for cars and vans, it has been quite successful, to the extent that they are now starting to withdraw it. That is the ultimate sign of success. They started with a clear purpose: they were there to incentivise and seed the early market, not just for the vehicles but for the chargers, recognising that those are also a significant investment. A decade's worth of grant funding and so on for both of those sides of the market is now starting to be reshaped and withdrawn.

We have not seen the same thing for buses. We have seen funding available in tranches through ZEBRA and some other funding packages for the vehicles themselves, but the significant investment in the infrastructure needs to be funded without Government support. That is something that we would like to see—

Q300 **Ruth Cadbury:** Basically, the Government have put very little focus on



infrastructure for the transition of buses.

Tanya Sinclair: In terms of dedicated, ring-fenced infrastructure, yes.

Q301 **Ruth Cadbury:** Is that a summary of your view of the recent EV infrastructure strategy?

Tanya Sinclair: Yes.

Ruth Cadbury: There is not enough on buses.

Tanya Sinclair: Yes. It is focused on cars and vans.

Q302 **Ruth Cadbury:** What needs to be done by other stakeholders? We often hear about the difficulty of getting three-phase electricity into sites. We have heard from a number of different parts of the transport sector about getting high voltage or high power lines in, partly to do with issues around local generation and local supplies from the national grid, and issues around wayleave. Are those aspects a challenge for you?

Tanya Sinclair: They are all parts of the overall challenge of electrifying bus depots. If you step back and look at what the project involves, it could be a retrofit of a 1970s or Victorian piece of architecture, which very much brings its own challenges. It is all wrapped up in that.

Q303 **Ruth Cadbury:** What steps do the various stakeholders need to take?

Tanya Sinclair: There is no one process, other than to optimise. This goes across the piece for EV charging infrastructure. Grid connection and the time taken for that to be granted is a significant hold-up to project management.

Q304 **Ruth Cadbury:** Is that a technological challenge or a bureaucratic challenge?

Tanya Sinclair: That is a permissions challenge, so it relates to the distribution network operators.

Ruth Cadbury: So it is a governance and—

Tanya Sinclair: Administrative challenge.

Q305 **Ruth Cadbury:** It is an administrative challenge rather than physically getting the power from A to B.

Tanya Sinclair: That is also a challenge.

Ruth Cadbury: There are dual challenges.

Tanya Sinclair: It depends on where the power is and how much you need to get to the particular location you want to electrify.

Q306 **Ruth Cadbury:** What about the other stakeholders and their role in this—the bus operators and the LTAs?

Tanya Sinclair: To my knowledge, with each project being a unique piece of work and done on a case-by-case basis, depot by depot and city



by city, it is very difficult to standardise at this early stage in the market. As we move forward collectively as suppliers and other stakeholders, we may find ways to standardise and therefore speed up the process of electrifying depots.

Ruth Cadbury: Thank you; that is very helpful. Those are all my questions.

Q307 **Chair:** Tanya, you talked about Belfast. To picture the scene, is it the case that the buses charge overnight and then they are able to go all through the day, or do they have to come back and charge again? How does it work in practice?

Tanya Sinclair: It is a real mix. I am going to speak in general terms, if that is okay. It depends on the route, the vehicles and the chargers that you have. A lot will charge overnight, and that will dictate you having a slower charger that does not need to charge at full power. You might have some buses that need to charge at each end of the route. Those will dictate the need for much higher power chargers, akin to the big telephone-box-sized ones that you tend to see at motorway service stations. Most depots will have a mix. The third aspect that they often build in will be chargers that sit alongside maintenance bays so that vehicles can charge while they are being repaired or maintained.

Q308 **Chair:** Coming back to the funding, from your understanding or from Peter's, the Government have committed to funding 4,000 zero-emission buses, but is any of that funding going to the infrastructure side of things, or is the understanding that it is all going towards buses?

Peter Freedman: I am probably not qualified in terms of exactly how the operator can split their funding, but my belief and understanding is that it goes towards the bus.

Ruth Cadbury: That's what Tanya said.

Q309 **Chair:** The concern we have had, as we have been thinking about this—obviously you have thrown in another part: that it is contingent on the orders from the bus service operators—is that these 4,000 may not end up going on to the road because no one has thought about the funding, or indeed the delivery, of the side of the operation that Tanya and her company can deliver. Is that what you are finding at the moment? Tanya, would you expect to be utilised and commissioned in more parts of the country by now?

Tanya Sinclair: What we would expect is more emphasis in other parts of the vehicle market. For example, with commercial vans we directly benefit from customers making quicker decisions because they have grant funding available to them. That is not the case in the bus sector.

Q310 **Chair:** Are there any other funds that local authorities can apply for? When we took evidence from you on the electric charging side of things, there was a local authority fund but a third of it had not actually been utilised. Are there similar funds available for the bus side of charging?



infrastructure?

Tanya Sinclair: For buses and charging infrastructure in particular, not to my knowledge. To give the example from Belfast that I mentioned earlier, there was a £74 million fund from Northern Ireland dedicated to a particular electrification project in Belfast for 100 buses. That covered some of the related infrastructure, but not all of it.

Q311 **Chair:** In England, are you seeing money that is just invested by the bus operators, or is it local authority funding that may itself have come from part of the BSIP bid?

Tanya Sinclair: As a supplier to bus operators, we are one step removed from being able to understand the cash flows involved and exactly how grant moneys are deployed. To come back to this point, there is no ring-fenced grant funding for infrastructure for buses in the way that you have, for example, for the workplace charging scheme. That has been a dedicated fund for several years for cars and vans to be able to benefit from workplace charging.

Q312 **Chair:** Peter, when you have discussions with your clients, are they also saying, "One strand is the order that we are going to put in with you and the other strand we're working on is how to make sure we can operate and run it, and how we're converting"?

Peter Freedman: Yes. Normally there are a couple of ways it can work. The operator will sometimes ask the manufacturer to recommend a charger, and potentially even supply the charger and work with a company to install it, or they will ask us to supply the bus and in parallel be working with a company on the infrastructure for the charging and putting that in place. That normally comes from the operator to us and not, for instance, from a local authority to us.

Chair: Do Members want to add anything further? No. Peter and Tanya, thank you very much. That was incredibly helpful and has taught us a heck of a lot more for feeding into our recommendations. Thank you for your time today.