

Local authority EV forum

Discussion summary

EV Infrastructure Considerations – TROs, Council Fleet & Chargepoint procurement

11 February 2022



Local Government Support Programme

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1. Introduction

Energy Saving Trust hosts local authority EV forums, in partnership with the Office for Zero Emission Vehicles (OZEV). The aim of the forum is to help local authority officers to find answers to their questions and share their experience with others working on public chargepoint delivery.

Our first forum, held in October 2021, focused on chargepoint procurement and funding. In December 2021, we held our second forum around Implementing EV infrastructure plans and the feedback from this session helped to re-shape our 2022 forum. At this forum, three presenters helped officers explore TROs, council fleet and procurement, asset and contract management considerations. OZEV also gave a short presentation followed by a Q&A session. All 62 council officers that attended were able to select which breakout session to attend in advance. Each room focused on one of the three presentation topics.

Our next forum will be in May 2022. Officers are invited to join a MS Teams group to continue the discussion (email lgsp@est.org.uk for more details). Alternatively, you can sign up to our Local Authority Alert newsletter for updates, which can be found here

<https://energysavingtrust.org.uk/service/local-government-support-programme>.

Previous LA forum reports can be found here: <https://energysavingtrust.org.uk/service/resources-for-local-authorities-on-electric-vehicle-chargepoints/>

2. Polls and Presentations

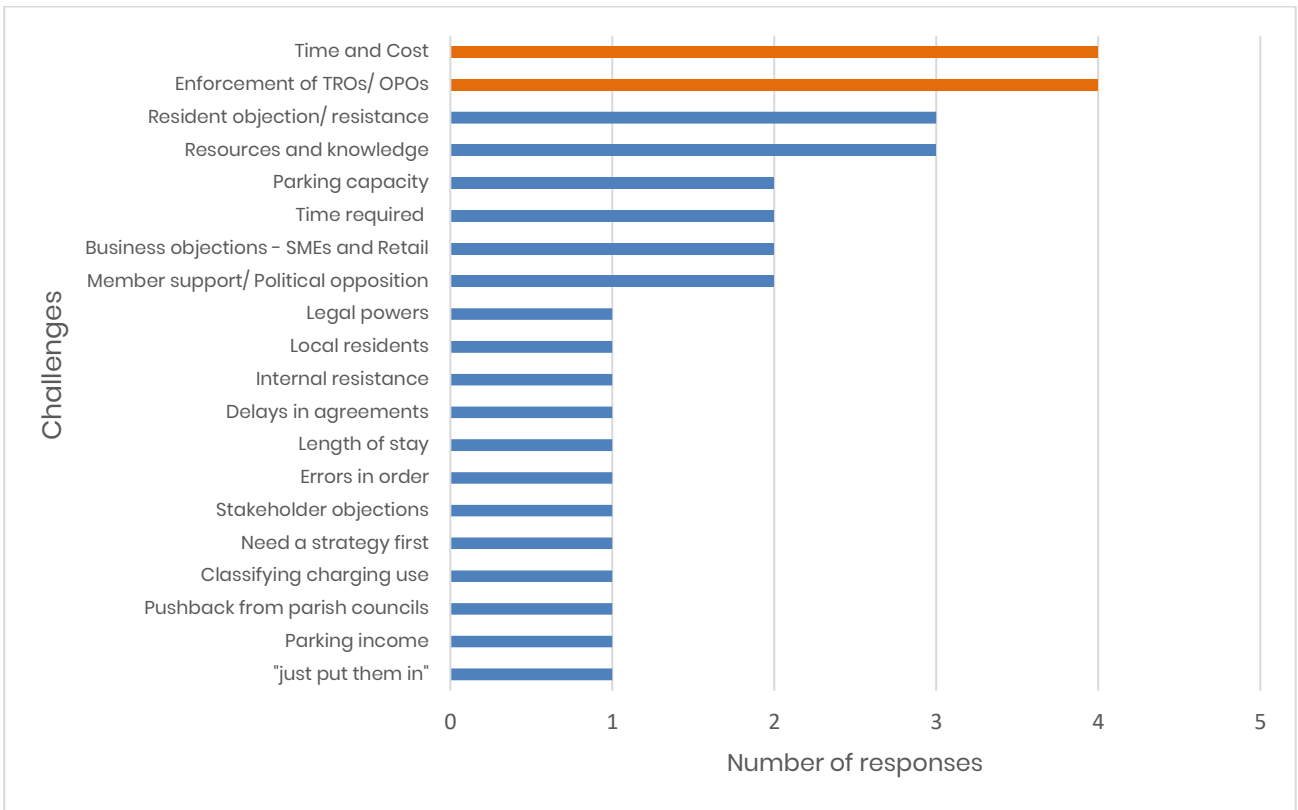
At our last forum, most councils indicated that they had awarded an EV infrastructure contract and another quarter were working on a tender. Therefore, at this forum, we looked at one next step, Traffic Regulation Orders (including Off Street Parking Orders) and explored the considerations when electrifying council fleets. We also revisited procurement, as we recognise many officers are still at this stage.

To explore the main issues surrounding these topics, we asked a series of polls.

Traffic Regulation Orders (TROs) and Off-Street Parking Orders (OSPO)

Our first poll asked whether councils have put in place any TROs and/or OSPOs to understand the level of knowledge in councils attending. We found 35% of council officers have implemented some form of TROs and/or OSPOs within their council, while 11% have not needed to explore this route as part of their chargepoint plans. 46% were not at a stage to put in place these orders, though 3% noted that barriers prevented them from implementing TROs. Figure 1 – **What are the challenges around TROs or OPOs** (29 responses) shows the results of our second poll to understand some of the challenges officers are experiencing around TROS and OSPOS for EV infrastructure projects:

Figure 1 – What are the challenges around TROs or OPOs (29 responses)

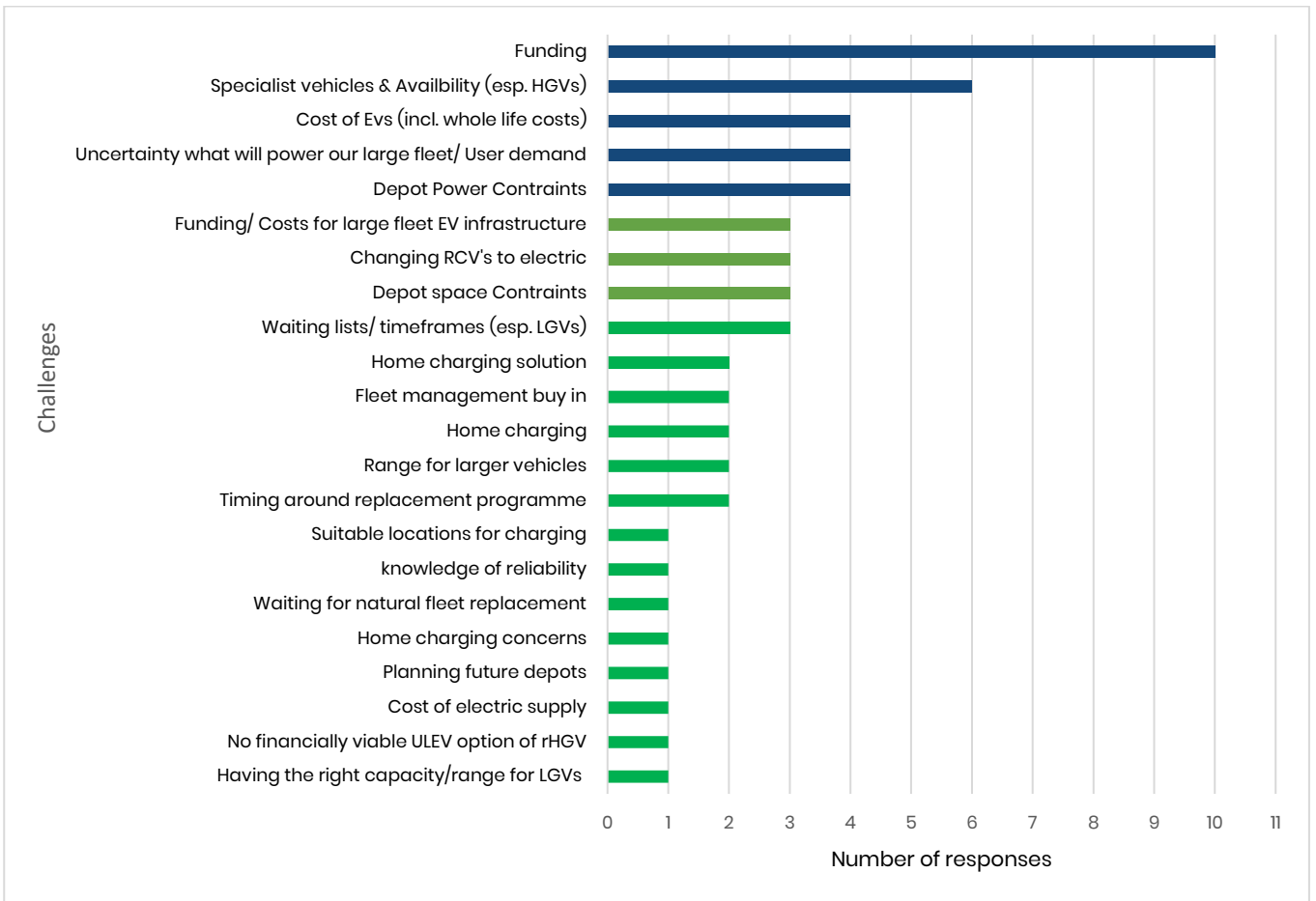


Coventry City Council presented on their “on-street charging” case study. Shamala Evans-Gadgil provided an overview on the process of on street EV charging installation, the consultation process, explained the Experimental TRO (ETRO) and TRO process, and how this has facilitated the uptake of EV charging.

Electrification of Council Fleets – EV implications

We asked on our third poll have you already put in infrastructure to electrify your fleet? Approximately half (53%) of council officers attending noted that they were already electrifying their fleets, while another 9% already had plans prepared to implement soon. The remaining councils were either looking at the electrification of fleet within the next 12 months (26%) to five years (9%), including it as part of fleet renewals, or did not have a plan to install EV infrastructure (3%). We then asked about the biggest challenges they faced around electrifying their fleet, see Figure 2 – **What are the biggest challenges around electrifying your fleet** (30 responses).

Figure 2 – What are the biggest challenges around electrifying your fleet (30 responses)

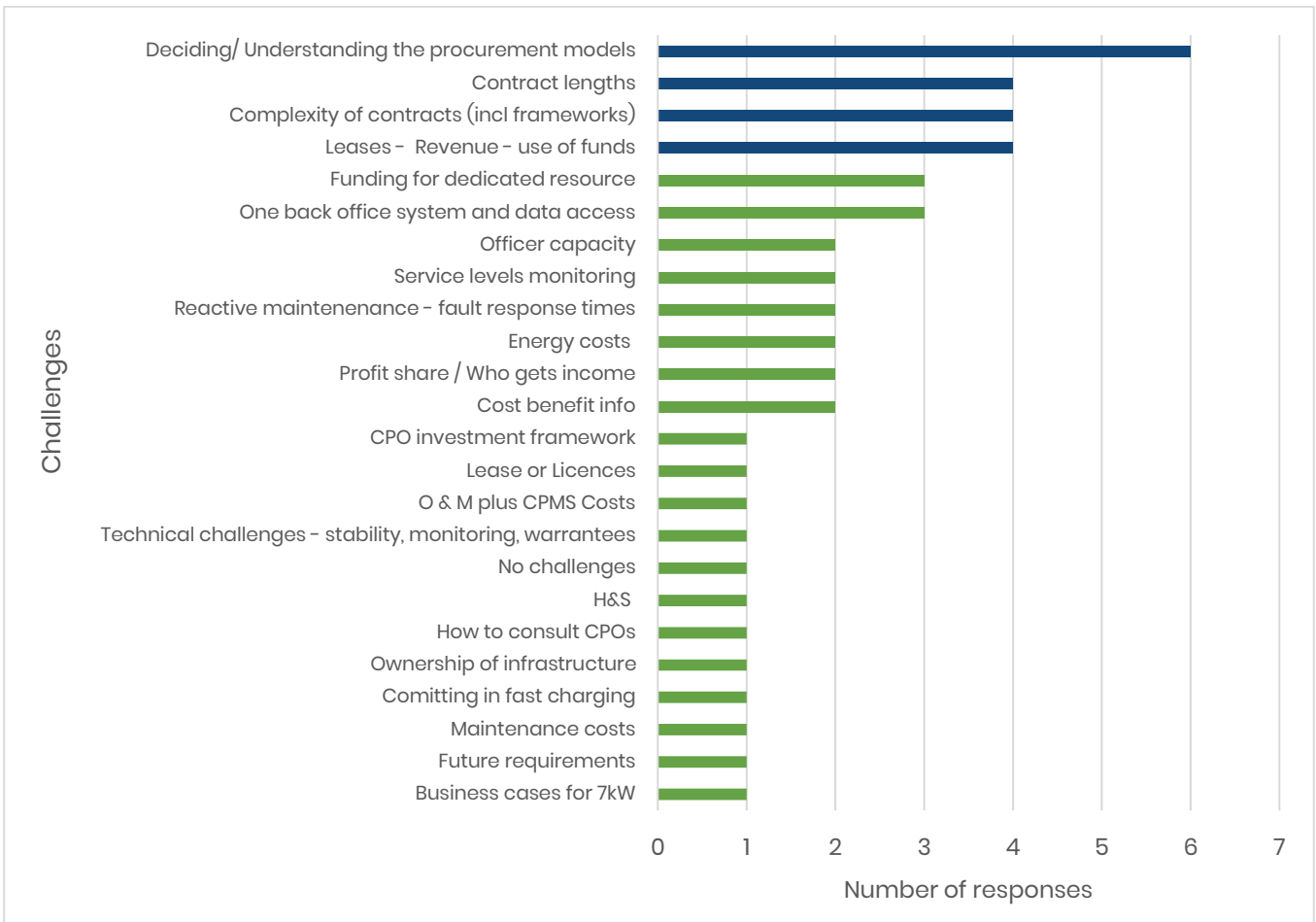


Energy Saving Trust’s Fleet team provided an introduction to electrification of council fleets. James Brown discussed the fleet challenges with capital costs, more efficient use of the fleet, understanding electric grid capacity at depots and fleet vehicle charging at home.

Procurement – EV asset and contract management

Procurement continues to be a key discussion item at all our LA Forums. Energy Saving Trust provides workshops to support officers, however many challenges and pressures continue to be experienced, see Figure 3 - **What challenges have you or do you face currently around asset and contract management of EV Chargepoints (27 responses)**

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West Sussex shared their EV infrastructure procurement journey, from the point of view of an officer who is not a procurement professional. They explained their approach which focussed on: bringing teams together, realistic timeframes, testing the market, considerations such as concession agreement, owning the underground infrastructure, design of spaces, district mapping) and possible risks to the project and how to mitigate them.

3. Breakout sessions

We held three breakout rooms, in which each session focused on a topic introduced by the presentations.

3.1. Understanding TRO implications in EV infrastructure Plans

Implementation of TROs

Coventry City Council spoke about the importance of the consultation process and shared some of their key learnings:

- Engage all council stakeholders, but the key focus is to talk to local residents as they will be the deciding factor (Coventry consulted with 20,000-30,000 residents)
- Try not to place EV chargepoints 'outside houses' as it causes conflict with neighbours. Instead, try to place next to hedges, fencing and gable ends of properties
- They adopted a similar approach to residential parking zones – i.e. installed 4-8 chargepoints per zone to support early adopters within the relevant zone.
- TROs were not put in place for fast chargepoints at the point of installation. Once charging demand has risen and residents are struggling to find an available chargepoint, this indicates that it is time to put in place a permanent TRO. The 'lag' may be number of years depending on the location and EV market.
- The 50 kW charging units had experimental TROs in place as soon as they were installed. There was a 6-month objection period for them, which helps to test what works and after that the Traffic Road Order restrictions can be altered.
- Enforcement is assisted by sensors in the parking bay. The system reports to Parking services whether the bay is occupied and if a vehicle is parked, plugged in and charging.

Coventry chose residential parking zones (where this allows a number of streets to be included in a zone), Swindon Borough Council chose a resident parking permit scheme which tends to generally operate on by street or location basis. In either case visitors can be issued permits by residents within a parking scheme so they can charge their EVs if in that zone.

Swindon Borough Council spoke about their implementation of “residential parking zones” for an on street EV pilot. From the beginning, they implemented an experimental TRO (ETRO) which only lasts for 18 months. After that period, the TRO must be made permanent or the TRO will have to be removed. As the project was On-street Residential Chargepoint Scheme (ORCS) funded, there is a requirement of 3 year reporting period to OZEV. The ETRO was potentially a risky option as after 18 months if there was an objection, it would have removed the option of putting in place an immediate TRO or delay future of TRO to control parking where EV charging points are installed. With Coventry’s approach it built resident trust which would make it easier to put in a TRO in future.

They shared some lessons learned from their pilot scheme:

- **Consideration of “Zones”** - If planning to implement ‘zone boundaries’, take time to consider their placement and be more flexible on multi-zone use *e.g. the nearest chargepoint to some Zone C residents was 100m away in Zone B, while their nearest Zone C charger was 800m away.*

- **TRO – EV Parking Fines** – Surprised by the number of objections to fines so need to take time to consider messaging to increase public awareness. *E.g. EV drivers were not aware they had to be charging to use parking space or ICE drivers felt they needed to be 'coloured green' to show for EVs only.*
- **Visitor Parking** – Residents can purchase a 'visitor permit', allowing visitors to park in the zones and use the chargers.
- Are allowing demand to build up before putting TROs in place, as per Coventry's example.

Overstay Charges

Several authorities spoke about the challenges of enforcement and concerns around chargepoint blocking from internal combustion engine (ICE) vehicles, as well as from EVs not charging.

One council discussed challenges with highways team on future of TRO enforcement and utilising "overstay" charges on electric chargepoints. Coventry City Council spoke about how extended use of chargers is a different issue to parking. For their 1 hour no return chargepoints, the back office will impose a fine for any overstay every 10 minutes. For example, if the parking space is for 1 hour parking, there is a fine for every 10 minutes after their 70- minute stay. The fine is tracked when the EV is plugged in. However, this does not resolve the issue of physically blocking the bay for both ICE and EVs which, without a TRO, becomes very difficult to enforce.

Beneficial Rates for Residents

Coventry City Council spoke about how they set up a reduced rate tariff through the procurement process. They utilise a revenue share model to receive a percentage of the profits back, and then the finance team can determine any beneficial rates for residents.

3.2. EV infrastructure and vehicle considerations for council fleets

Attendees discussed how to build a strong business case for fleet electrification. Suggestions for strengthening the business case included:

- Implementing overnight charging at the depot, allowing vehicles to charge at non-peak times and access zero carbon electricity. Using these hours, certain tariffs will be cheaper, providing a strong case for cost savings and recouping the costs on commercial and fleet vehicles

- Switching to battery electric is going to be the most efficient form of transport, and therefore the cost savings from being more efficient will strengthen the long-term economic case
- Beginning EV fleet journey by starting with one or two vehicles to gain an understanding of the transitioning process, the specific routes involved and to allow time to get people on board
- Deferring renewal until you can replace a large number of vehicles at once may put the council in a better situation as production improves, options increase and prices drop
- Producing cost saving models and quotes, using the [CCS framework](#), to work out fuel, energy, and maintenance costs, as this will allow the council to demonstrate whole life cost savings and carbon savings
- Having sight of the data and telematics across the fleet will help the council understand the fleet, trends, and patterns. 150 miles of range will likely be sufficient for most fleet to make the most of their journeys for most of the week.

Long-Term Vision

Energy Saving Trust's Fleet team emphasised how crucial it is to future proof council fleets as soon as possible. To understand how to electrify your council's fleet, you need to understand the electrical capacity available at the site first. Once you understand what you need, you can install chargepoints needed while also preparing for future demand. Here are some key steps:

- **How many "on-site chargepoints" are required?** When considering how many on-site chargepoints would be necessary, it is useful to map out chargepoints that vehicles would pass on their daily/weekly journeys. So, plan accordingly and get adjustments in place now, rather than down the line.
- **What is the current and potential future electric demand?** Telematics are an important tool to help build up a picture of current and future demand. Potential to use fleet telematics to work out the kWh required from the fleet when comparing current activity of the fleet. Suggestion to track the peak for the busiest day, and if that fits within current grid capacity of the depot/site(s) and the battery capacity of the electric fleet. If it doesn't, further investment will be needed e.g. discussions with DNO, battery storage etc.
- **Building a case for electric refuse collection vehicles (RCVs)** With larger vehicles, there is a significant prospect of prices going down significantly as production increases, plus more options will evolve and the vehicle becomes part of main series production. To strengthen the case, remember that the longer the vehicle is on fleet, the more time there is for the savings from switching to EV to be realised, so it might be worthwhile to adjust replacement cycles.

Clear Climate Policy

Hull City Council explained how, when they face opposition around transitioning their fleet, they cite their climate change strategy of becoming carbon neutral by 2030 and emphasise that, irrespective of the economic argument, they are mandated to be zero emission by 2025.

They advised providing a strategic context, focusing on what the local authority wants to achieve, and putting in place a clear policy on becoming climate neutral to strengthen the argument that the council's fleet is part of that mission.

Infrastructure Costs

Allerdale District Council run a Waste & Recycling Service with 29 RCVs; they found the infrastructure costs associated with the charging requirements prohibitive (about £1m investment), so they intend to wait for the costs to come down.

In response, Energy Saving Trust's Fleet Team spoke about how the individual circumstances of each site will have a huge impact. For example, if the nearest/connected substation has no spare capacity, it will require upgrades which will increase costs. However, sometimes, the dynamic capacity (energy that can be generated on site and stored in batteries') can provide an alternative solution to upgrading that substation.

There are companies that can explore that solution and also options to get them to fund the whole project, and then pay back the cost over an agreed period. This means it is not an upfront cost but an operating cost and at the end of the timeframe the council owns the asset.

Installing Fleet Chargers at Homes

Attendees discussed installing fleet chargers at domestic residences, however noting that not every staff member has access to off street parking or has enough space on their driveway for a van. Some councils have experienced staff objecting to having the van on their driveway.

It was discussed that 'home charging' that could work for remote fleet, if councils have a sufficient level of data that allows them to know how many kWh have been used at home, at what price (domestic tariff evidence from employees). This can be easily tracked through certain vehicle telematics. Some chargers can recognise different vehicles, so charging domestically should not be a problem. In the scenario where a staff member leaves after having a chargepoint installed at their home, some councils have noted that they allow the resident to keep the chargepoint as part of their wider EV uptake strategy.

When adopting EVs at a large scale, it can be useful to start with those who are keen to have EVs, get a few champions and the principles in place, and then scale up from there. There will be challenges where people do not have off-street parking.

3.3. Considering EV asset and contract management in procurement

Establishing Effective Frameworks and Contracts

Further to the main session, discussions were held on how best to establish EV frameworks. West Sussex detailed that a thorough procurement process, if done right, is at least 6 months. As a result, it will be possible to reap the benefits of knowing what is required, what is going to be delivered and that it can be managed effectively. The group offered suggestions of how to do this:

- Finding someone in the procurement and legal teams and getting them on board and assigned to the project
- “Soft Market Testing” through procurement, to understand the potential amount of return the council could expect, as well as the cost to consumers
- Implementing a joined-up approach, working with districts, boroughs, parishes, community landowners to encourage them to put their land assets forward
- Learning from what other local authorities have already done. For example, Kent County Council have put together a procurement framework
- Estimating contract value before going out to procurement. West Sussex took a maximum number that they might need (7,500 CPs) and used this to establish a maximum contract value
- Ensuring contract lengths are thought through cautiously to save time in the long run. In West Sussex’s experience, suppliers they had engaged with had advised 10 years for contract lengths, so they went out to procurement with 7 years + 3 but no-one bid. They had to abandon that length and go out again with 15y + 5. It was easier to amend, as they had “soft market tested”.

West Sussex County Council spoke about how they decided they wanted a revenue share with a portfolio approach (linking high and low/non-profit sites) and went with one supplier. They are delivering a county-wide solution and estimate they will require around 7000 CPs to serve those without access to off-street charging.

They will work with the supplier to come up with a realistic network plan and installation targets. Trying to look attractive to the market is a huge consideration, which is also why they worked with partners (districts/boroughs) who can offer car parks sites alongside highway/on-street offering.

Multiple Suppliers

Some councils voiced concerns around single supplier contracts and wanted to work with multiple suppliers to avoid a monopoly and encourage competition.

Croydon Council explained how having 6-7 operators has been very difficult for EV drivers, their legal and finance team. Over the next five years, each of these contracts are coming to an end and while they don't want a single operator, they do now want fewer than they've got currently.

Attendees discussed the various considerations involved with multiple suppliers:

- If multiple suppliers chosen, think about how the less commercial sites come forward as part of the process. Every supplier seems to have a slightly different view on what makes a good site, so it is hard to be able to put together a balanced selection of sites and to make sure all the sites the council selected/wanted come forward (West Sussex)
- The equity and balanced distribution of a network is part of the reason for minimising the number of contractors. Installing separate slow, fast and rapid chargers means providers would be competing for the same council sites. There is plenty of competition in the borough already (Croydon)
- Separating the borough into zones potentially opens up multiple vendor options on a zonal basis (Solihull)
- To avoid multiple contracts, make sure the equipment is migratable/interoperable and can switch between different back-office systems (Bristol)

Council-Owned Network

Bristol City Council and Go Ultra Low West have launched and expanded a council-owned and operated network ([Revive](#)). No 'one approach' will suit every council, but they believe if there are the resources to do so, it may be beneficial to have strategic control over where chargepoints are positioned to allow equal opportunity of access.

Feasibility Study of Sites

In most cases, it won't be realistic to ask every supplier (who won't be guaranteed to win the bid) to do all the work to check the feasibility of all sites. West Sussex decided that instead of asking potential suppliers to carry out a feasibility assessment, they would ask them what methods they would use so they could evaluate the quality of their processes.

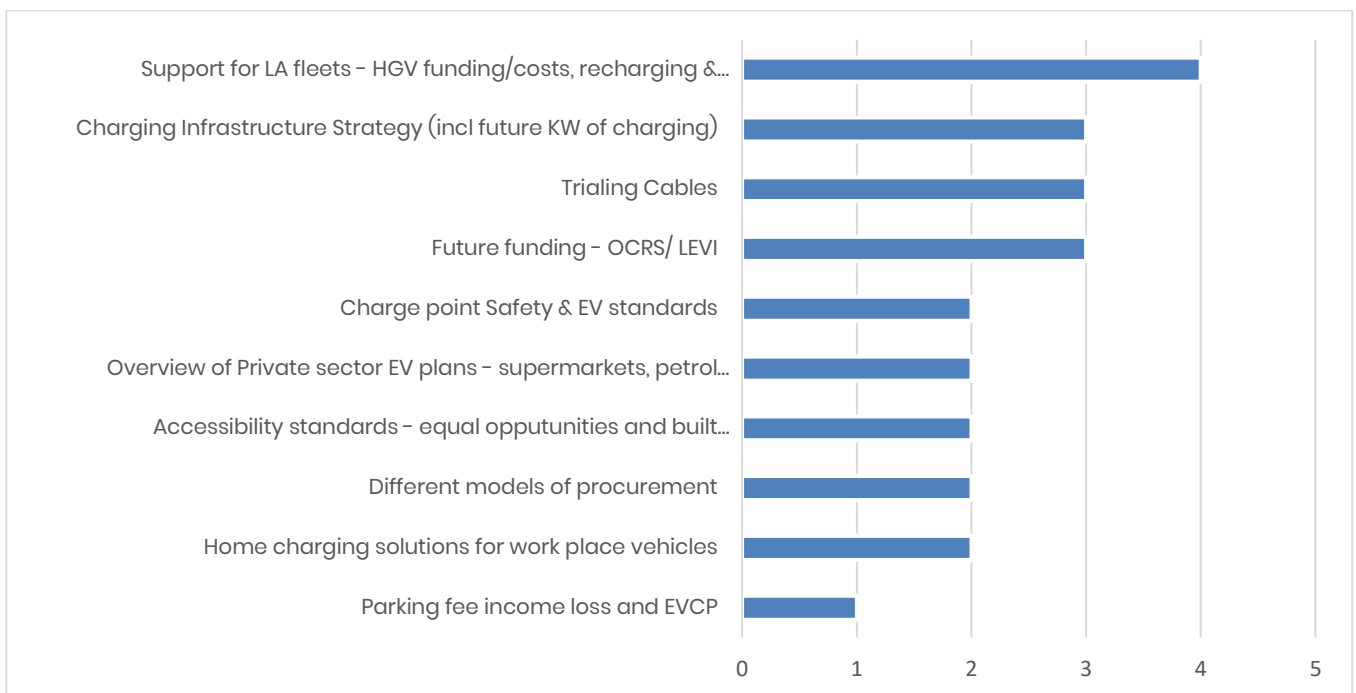
West Sussex carried out an initial process of discarding any totally unfeasible sites (private residential locations, fire station car parks, etc.) and put forward an extensive list to see where suppliers do and don't want to install.

4. Feedback on forums

2021/22 LA Forum Review

We have now held three Local Authority EV forums in which we request feedback. 81% said they would strongly recommend the forum to another officer, and most were supportive of the change of format. We asked all attendees what areas they would like to cover at the next LA Forum, see Figure 4.

Figure 4 - What subjects would you like to be covered at the next forum (25 responses)



5. Questions and Advice

Some queries could not be answered during the forum, please find responses below.

Table 1- Questions asked at the Forum that were not answered – 11.02.22

Area	Question	Advice/ Comments
UK Gov strategy	Does the EV infrastructure fund include money for designing the built environment to create hubs rather than just funds for EV chargers?	No further details could be provided at this time, as it is being signed off by relevant government teams.
	When the EV Chargepoint strategy will be published?	A specific date cannot be provided, but it will be out soon
Funding	ORCS scheme confirmed as £20m for 2022/23 financial year?	The exact funding will be announced March/April 2022
	Do we know when the detail of the LEVI funding criteria will be announced?	An announcement will be out soon - potential March/April 2022
On-Street Charging	What is going to be the rules around making sure that the chargers don't just remove more space from pedestrians?	Need to make sure there is minimum 1.8m between the charging bollard and back of footway. Also, need to ensure we are putting the right chargepoint in the right place, it may not always be charging up on your road, but include destination/workplace charging.
	The implications of e-Gully trial?	Please attend our webinar on 17 th and 23 rd March 2022 – Alternatives to roadside charging
Rapid Chargepoints	What are the Govt plans for funding more rapid charging hubs?	More will be provided in the upcoming release of the EV infrastructure Strategy and LEVI funds.

Area	Question	Advice
Energy Prices	Business Energy Rates – as businesses aren't protected by the energy cap. Do these 30-40p a kw rates ruin the business case for EV light good vehicles vs diesel equivalents?	If businesses charge at that rate all the time, then it will mean the savings normally associated with an EV are mostly lost. However, for a depot or home based vehicle, this kind of charging would very much be the exception on the busiest days rather than the rule and rarely even need to be a full charge (assuming a reasonably battery is in the vehicle). As such, we generally don't foresee the business case most local authority fleet applications being significantly affected by off-site charging costs, if charging properly managed.
Charging from home – costs back	How do staff get electricity costs for home charging repaid?	This can be done many ways: <ul style="list-style-type: none"> • For fleet vehicles – Telematics • For grey fleet – Expenses Councils can explore gathering charging data is installing their own chargepoints.
Equity	Are there any specific measures supporting rural areas to provide equity between urban and rural communities?	More will be provided in the upcoming release of the EV infrastructure Strategy. Also, we plan to hold a webinar or discussion on this topic in 22/23.
Fast Chargepoints	Challenges that Chargepoint operators aren't interested 7kw chargers even with ORCS funding. With lack of budget/resources to provide on-street chargers in every street where houses don't have off-street parking – which is what will be required as we approach 2030.	As noted in the forum, other councils were not having the same challenges with fast charges. Different chargepoint operators have different focuses, supply chains etc. With on-street solutions, the impact of resources is understood and to ensure we are putting the right chargepoint in the right place. It may not always be charging up on your road but include destination/workplace charging.

Area	Question	Advice/ Comments
<p>UK Gov funding</p>	<p>Update on when OZEV will open up the Home Charging Scheme/Workplace Charging Scheme (WCS) to include grants for SMEs</p>	<p>If your primary place of work is also a residential property (your home), you can apply for the grant under the Workplace Charging Scheme, as long as your address is listed as your place of business with Companies House or HMRC. See Workplace Charging Scheme: guidance for applicants - GOV.UK (www.gov.uk)</p> <p>Changes are anticipated to Workplace Charging Scheme soon and find more about the Residential landowners Electric Vehicle Homecharge Scheme by clicking here</p>
	<p>Why did the workplace charging grant scheme change so that customer use disappeared from the criteria?</p>	<p>Customers are not (and have never been) eligible for the WCS – it is intended for staff and fleet use only. OZEV are planning to extend WCS to allow charities and small accommodation businesses to apply on behalf of their customers in the coming weeks and there will be an announcement on gov.uk when those changes go live</p>
<p>Equity</p>	<p>How do we support the need for out of town hubs and workplace charging infrastructure?</p>	<p>More will be provided in the upcoming release of the EV infrastructure Strategy.</p>