Leicester City Council

Scrutiny Review

Examining Electric Vehicle Charging Points in Leicester

A Review Report of the Economic Development, Transportation & Climate Emergency Scrutiny Commission

March/April 2024

Leicester City Council

Contents

Economic Development, Transportation and Climate Emergency Scrutiny Commission

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FOREWORD

I am pleased to present the report from the informal scrutiny Task Group on the Council's approach to Electric Vehicle Charging Points. This is a very important issue going forward as the number of Electric Vehicle users in the city increases and also in terms of meeting emissions targets. In looking at this we aim to be ambitious as a Council, considering not only how to make sure we are catering for the demand, but also encouraging residents to move to electric vehicles with a sustainable plan to do so.

Our work focussed on the provision of Electric Vehicle charging points in the city and how the Council fits in with central government and the private sector in the delivery of Electric Vehicle Charging Points. In particular, the group considered the use of the government Local Electric Vehicle Infrastructure Fund (LEVI) and its potential to provide Electric Vehicle (EV) Charging Points, as well as the private provision of charging points, such as those in supermarket car parks, and how certain methods could be encouraged by the Council. The Group also looked at the wider implications for EV Charging Points, such as the potential effects to the National Grid. We explored how we could match what we believe the city requires compared to what the funding requirements are.

I would like to thank City Transport Director Dan Pearman for his assistance through compiling detailed and useful information from the Council, the government and from the private provider Char.gy. Without this information we could not have been adequately informed and therefore would not have been able to confidently make the recommendations that we have.

We hope that the recommendations of the group will help the Council to clarify its position on the provision of EV Charging Points and to encourage private EV charging point providers to work most effectively for the greatest benefit to the city and its Electric Vehicle users.

Councillor Molly O'Neill
Vice-Chair of Economic Development, Transportation & Climate Emergency Scrutiny Commission

1. EXECUTIVE SUMMARY

1.1 Background to the Review

1.1.1 As of June 2023, there were 3,802 electric cars (including plug in hybrids) registered to addresses in Leicester – around 2% of total registered cars across all fuel types. 16% of all new cars registered in 2022 were EVs, and the pace has been gradually accelerating.

1.1.2 Including chargers in private car parks, there were 117 chargers available for members of the public to use across the city as of October 2023.

1.1.3 The provision of charging infrastructure in support of Electric Vehicles is key to various plans and strategies, including the Carbon Neutral Roadmap and the Local Plan.

1.1.4 The City Council has more recently delivered schemes to provide on street charging options using available grants. This has included the On-Street Residential Chargepoint Scheme, which allowed for a trial of 22 chargers to be installed and the European Regional Development Fund which has allowed us to begin a programme of delivering 35 fast and rapid chargers across the city centre.

1.1.5 Whilst continuing to deliver infrastructure as funding allows, the city council has additionally been developing its approach to Electric Vehicles/charging. This will help us understand the future demand for EV charging and opportunities for delivery of charging infrastructure in support. Development work has followed multiple paths, including the suitability of electric infrastructure across the city; the availability of private, off-street parking; and social or environmental factors that may drive uptake of electric vehicles.

1.1.6 We have additionally considered the type of infrastructure that can be supported and how to best ensure that the provision of electric vehicle charging does not disadvantage other users, such as pedestrians, nor create potential legal complications over rights of access or parking.

1.1.7 We have recently submitted a business case under the government's Local Electric Vehicle Infrastructure Fund (LEVI). Leicester has an indicative allocation of £3.38m. The fund is targeted towards relatively low powered charge points that would be found in residential streets, rather than rapid charging hubs.

1.1.8 There is an expectation from government that the majority of public charging need will, nationally, be met by private enterprise either at the kerb or within car parks and private businesses. As battery capacity

increases, and charging speed decreases, this is likely to result in the growth of destination charging at shops, tourist attractions, car parks, and other similar facilities.

1.1.9 The government has recently delayed the requirement for all new cars to be zero emission to 2035, though retains a target of ensuring 80% of new cars and 70% of new vans are zero emission by 2030.

1.1.10 The automotive market has continued to develop and release new models of electric vehicles, though they retain a price premium, and the second-hand market is continuing to grow. Range of vehicles is increasing steadily, with most new vehicles having a standard quoted range in excess of 300 miles per full charge.

1.1.11 The council's role in supporting the delivery of EV charging is dynamic, as the market develops and will follow government policy and changes within the industry.

1.1.12 The Council are in the process of developing an EV Strategy. It is necessary to ensure that we are going at the correct pace and the solutions are right for Leicester. With this in mind, a wide-ranging public consultation will be needed in order to inform a defensible strategy and to allow a pipeline of work rather than being led to where the funding is.

1.2 RECOMMENDATIONS

1.2.1 At the informal meeting on 28 April 2024, members endorsed the following set of proposed recommendations:

a) That the strategy position be for the Council to be a leader rather than a driving force, simplifying the process for residents and petitioning the Government to do this on a national scale.

b) That the Council urge the Government to come forward with clearer recommendations for Local Authorities on EV Charging Points.

c) To indicate that kerbside charging points are not the appropriate solution for all locations, and are not the council's preferred solution

d) That the Council encourage destination charging points.

e) That commercial companies with different approaches and fees be encouraged to be more holistic and have a more user-friendly approach.

f) That the public consultation and associated documentation have scrutiny oversight.

2. REPORT

2.1 Review Rationale

2.1.1 National Policy outlines that:

- Decarbonisation of road transport is a key part of the government Net Zero Strategy and the Transport Decarbonisation Plan.
- All new cars are to be zero emission by 2035.
- 80% of new cars and 70% of new vans to be zero emission by 2030.
- Most of the demand for EV charging to be provided by the private sector.

2.1.2 Local Objectives and Policy is such that transitioning vehicles to zero emission is a key part of the Carbon Neutral Roadmap and has the largest possible impact on transport related emissions. Also, a key feature of the Local Plan, Climate Emergency Action Plan, and Air Quality Action Plan, recognising the benefits to local air quality as well as decarbonisation.

2.1.3 Challenges to the implementation of the above include:

- Grid Capacity
- Cost
- Highway Space/Constraints
- EV Uptake
- Market development for chargers

2.1.4 The informal scrutiny aimed to examine the issue and develop recommendations that could help the council to enact its policy and objectives in the most effective way and to help the council to address the aforementioned challenges.

2.1.5 There will be an adoptive strategy that will require public consultation. This is a good time for scrutiny as it does not preclude intervention later

on, and areas of concern from members can be taken into account to consider for the strategy, which can help it become more developed. In this way, the strategy can be brought to scrutiny before going to public consultation.

2.2 Review Approach

2.2.1 Following initial meetings with the Chair, Cllr O'Neill, City Transport Director, Dan Pearman, and Senior Governance Officer, Ed Brown, it was agreed that the task group would meet over three sessions.

2.2.2 The first session would consist of an introductory presentation (Appendix A) informing members about the background of the issue, the current situation of EV charging points in Leicester and potential strategies for the future. Members were given the chance to ask questions and make suggestions. Witnesses and stakeholders were identified to be invited to the following meeting to present evidence.

2.2.3 At the second meeting, evidence was presented in the form of a written representation from Char.gy (Appendix D). Additionally, the positions of the AA and RAC were taken into account. The evidence was discussed by the group, along with wider discussion around EV Charging Points.

2.2.4 At the third meeting, the group examined the draft Electric Vehicle Transition and Infrastructure Strategy (Appendix C) as well as being shown a presentation showing the usage data for EV Charge Points (Appendix E). Following discussion on these, and reflecting on other issues raised in the course of the three meetings, recommendations were made.

2.3 Current Arrangements

2.3.1 The current situation regarding delivery streams, national policy, highway space and capacity, and market development are set out in the presentation (Appendix A).

2.3.2 Public Charger Availability – There are a cluster of chargers in the Clarendon Park area, and a good number in the city centre, but there is not much provision in the north and southwest of the city.

2.3.3 Whilst a number of charging points were installed as part of a trial by the Council, many of the others are installed in car parks or areas that are not under the control of the council. For example, Sainsbury's has a rapid charging hub which has increased provision in the north of the city, however it is not known how many people were using them.

2.4 Evidence Gathering

2.4.1 A presentation was given by the City Transport Director at the first meeting of the group (Appendix A). This informed the members of the current situation in the city, national policy and the challenges facing the strategy.

2.4.2 Ten stakeholders were identified to for engagement. None expressed a desire to participate in the meeting and one, charge point provider Char.gy, had given a written submission (Appendix D), it was to be noted that this organisation was under contract with the Council.

2.4.3 It was noted that the topic area was very broad, and this was a niche, new topic.

2.4.4 Many Councillors had received information from Charge Gully, a company who worked with cross-pavement gullies for EV Charging cables and had sent a report to commission members looking at the key considerations associated with cable gullies.

Issues surrounding this solution were discussed. A major issue identified was that it assumed that residents had a space to park outside their house, and even if a residents' parking scheme was in place, there could still be issues as follows:

- In trial sites where authorities had tested this, it had sometimes been the case that charging points were only available on one side of a carriageway.
- 24-hour access would be needed and if somebody else parked in a resident's space then this could cause issues.
- Whilst it was theoretically possible to require a permit for a certain space, neighbourhood disputes cold still ensue as neighbours could see a certain section of a highway as being appropriated by a user.

It was noted that a blanket licence could not be issued for the installation of such structures under current legislation.

A permitting system would be needed, however, residents might not understand this and may install without a permit based on seeing a neighbour install one.

2.4.5 Within the representation from Char.gy it was noted that there were two possible streams of work to allow people to charge using a lamp column or another fixture so that they don't need access to their own home.

With regard to their first option, to increase the rollout of lamp column chargers, there is a trial site active at the moment that had shown quite a good level of usage and an increasing level of usage. However, problems had occurred where lamp columns in the city that had been at the back edge of the footway rather than the front edge. Whilst having them at the back edge meant they were less likely to be clipped by cars parking up, they did cause a hazard in that a cable would run across the footway.

With regard to their second option, upgrading the supply in denser areas of the city, such as through destination charging, there had been some supply in Newarke Street, but this was underutilised. It was thought that this could be because EV users were not accustomed to the city centre and more accustomed to chargers such as those in park and ride areas or those at supermarkets where people could charge whilst shopping.

It was noted that a major difficulty was that the Council were constrained by what government funding would allow. For example, the LEVI fund is intended to provide lower power residential chargers, and could not easily be used for building on private land. Additionally, having rapid chargers on a time limit in areas such as Queens Road to allow users to charge while shopping would not be allowed under this funding stream as it would not support primarily residential usage.

Further to this, the funding is dependent on the Council supplying areas where there was a low commercial appetite to install charging points. Two issues were identified with this: Firstly, underutilised areas could attract vandalism or theft and increase operational cost, with little usage to offset impacts. Secondly, users may not trust points in areas that are not often used or are some distance from their home address. There is a need to direct to where there is usage, however, demand cannot easily be anticipated and is reliant on factors outside of the council's control.

2.4.6 Some data had been collected (Appendix E) on the hours of usage and patterns of usage of charging points to ascertain whether there were groups of recurring customers or whether usage was more *ad hoc*.

2.4.7 The AA and RAC have stated that they would like to see an increase in charging offers, but recognised the needs of users are for charge points to be accessible, usable and ultimately are available when needed as there is a growing trend of people that will navigate to a charge point and find it out of order when they get there. Additionally, there cannot be a single charger in an isolated area since if it were to go down, it would affect a large number of people. Further to this, if a car was losing charge and arrived at an isolated charge point that was out of order, it would be stranded.

In terms of roadside recovery, proportionally, fewer drivers run out of charge each day than run out of fuel each day. However, the AA and RAC are not able to resource recovery vehicles that can carry both fuel and have the ability to fully re-charge an electric car, so they can only give enough charge to get a car to the next service station or tow it to a charging point as service stations can be far apart from each other.

2.4.8 With regard to the draft strategy, the City Council has commissioned work via a consultant to see where in the city would benefit from charging points, as well as ensuring there is provision. It is modelled on the demographics of a given location based on the level of demand and usage based on current provision. It had been mapped based on modelling that showed where chargers are, and the areas covered.

2.4.9 The Technical Review Summary considered how much electricity was available for future sites and how much could be determined based on location and how much was based on requests for chargers.

2.4.10 Most work had been paused whilst the LEVI application was done as what was being asked for by the government was different to what the Council wished to do. The original plan was to be private sector led, but the scheme was now more about how charging points could be delivered.

2.4.11 Two Council officers had attended a LEVI masterclass. These had only started recently but the officers have brought learning back showing the need to refine the draft strategy document and have a statement to show the position of the Council.

2.4.12 As things stand, the public consultation will be a three-week process with people who have corresponded with the Council. This could be extended to a six-week process. Attempts to engage with the sector and with groups have shown limited interest of stakeholders. Engagement with the public may be more successful, although it is acknowledged that this is a niche topic.

2.4.13 With regard to usage data (Appendix E), the group were informed that:

- The different locations provided by the different suppliers meant that environmental comparisons could be drawn.
- The Blink charging point by St Mark's was mainly used by LCC vehicles.
- The vast majority of usage was on Newarke St and Dover St.
- Abbey Car Park had seen a big jump in usage. As it had come online, users had chosen to travel there to charge their vehicles.

- Usage in car parks such as Humberstone Park had been disappointing.
- Char.gy had 20 chargers on their network. Most of these were lamp-column chargers. It was suspected that these charges were lengthy as it was not economical/practical to do short charges.
- Usage of Char.gy outlets were more evenly split.
- Anecdotally, many of these charging points had been installed as they had been requested by residents, however, they had not seen the level of usage previously thought. It is possible that people had said they would buy an electric vehicle if they had a charging point, but still had not bought one (for various reasons) once a charging point was installed.
- There had been more use of destination chargers. Many of these are outside the control of the Council but are open to public usage.
- Demand driving supply had been temperamental. People had seemed more willing to change usage patterns in order to go to a better location.
- Cost information was shared as on the slides attached. It was noted that factors such as speed and use of air conditioning affected the charge. Slower vehicles could often be more economical.
- It was further noted that some charging companies had a connection fee just to start charging.
- Char.gy had been asked for data on their user types and the DVLA had been asked for a breakdown of EVs by postcode.
- It was thought to be too early to have a large number of residential chargers. One factor in this is that people need a driveway and access to home charging to offset the purchase cost of an EV.
- There had been a degree of negative communication surrounding electric vehicles with internet reviewers saying that it is not worth it unless you have private charging. However, it is still cheaper per mile than a petrol car depending on the cost of local charging and level of provision.
- It would be useful to understand whether users of destination charging are city residents or visitors to the city.
- Park and ride sites are underused for charging.
- It would be good value for users in the north of the city to drive to Birstall Park and Ride, leave an EV on charge and get the bus into town.

2.4.14 The Council were currently in the first tranche of LEVI funding. The second Tranche would start at the end of next year. This would be a direct allocation rather than through bids.

2.4.15 The City Transport Director had met with the National Grid to better understand the level of capacity. Concerns were raised should the city make a concerted investment in EV charging as existing schemes had already required sub-station upgrades.

2.4.16 The workplace charging scheme was a government grant and subsidy, but this only funded equipment and not supplier upgrades.

2.4.17 The On-Street Residential Chargepoint Scheme for residential chargers had strict and narrow requirements The City Transport Director understood authorities had looked to leverage alternative funding streams to maximise flexibility.

2.4.18 There had been various schemes to offset EV owners could receive grants to support installing charging points or minor tax benefits. These schemes have been withdrawn, and as of April 2025 electric and zero emission vehicles will be required to pay Vehicle Exercise Duty and will no longer be exempt from the Expensive Car Supplement on vehicles exceeding £40,000.

2.4.19 With regard to EV Chargers in schools, schools had only recently been able to access grant funding which had previously been under the Local Authority umbrella. The Council has now been asked is whether it would be in a position to support schools in applying for funding.

2.5 Review Findings

2.5.1 Compatibility – Some cars are not compatible with the faster charging points, and as such, if they were to charge at one of these points, they would pay a premium but not receive the benefit of faster charging.

2.5.2 Petrol stations – The decommissioning of petrol stations could be an issue in the future and the role of the council in this could be explored.

2.5.3 Proportion of EVs – whilst vehicle supplies had dropped, the proportion of vehicles that are electric has grown. It is thought that very soon the majority of vehicles on the road will be electric or hybrid.

2.5.4 Hydrogen Vehicles – These have not caught on in the UK. Only one model is available and has very limited areas to refuel.

2.5.5 Cost of use – The cost of using charging points is dependent on the energy tariff. Some suppliers offer membership schemes with a pay-as-you-go system and some suppliers offered a 12-month introductory price. The operator currently under contract with the Council, Blink, has already been engaged and told that the Council wants all customers to be given a very clear indicator of how much they will pay, and if there is any option offered for membership or reduced fee that's made

immediately clear up front and if necessary, customers reminded at the start of the charging cycle to avoid hidden costs

2.5.6 LEVI grant - Forecasting is currently under way to ascertain how many chargers the LEVI grant can pay for. The purpose of LEVI funding is to provide the seed money for the private sector to take up, estimated to provide around about 1/4 of the overall need by 2030. A requirement that was given as part of the fund that they had to target areas where either there was no commercial appetite or little commercial viability. The LEVI grant would need to be used in a tactical way that encouraged onward investment.

It is expected that guidance would come from the government on an agreed spec and standard for electric charge points, which would mean that charging points on the highway would always be compliant.

It is also expected that that guidance would come from the government on the delivery of LEVI monies by local authorities. A LEVI 'masterclass' is being run so local authority officers can join sessions that are run by industry experts in the automotive sector.
New companies, solutions and offers are appearing. Therefore a national approach would be useful to ensure that the Council takes the right course.

2.5.7 Locations of charging points – Thought needs to be given to areas where people could not charge on their driveways or in garages. Some employers are installing chargers in workplaces and offering the charging as a perk to staff.

2.5.8 Fitments – These are not seen as a good solution for Leicester as many streets don't have parking on both sides, and as such this can lead to residents nearby feeling a sense of ownership which could cause conflict between residents (a trial in Oxford has shown this to be the case). Additionally, people with mobility issues may not be able to bend down and pick up the cables.

2.5.9 It has been suggested that the Council should promote where there are a network of charges that are available, similar to petrol stations, and the industry look to reduce the charging time to the point where you can do a charging cycle at your local neighbourhood shopping precinct or at the supermarket or part in the city centre. Further to this, the government is being encouraged to introduce a cap and value system so that there is no severe profit gouging.

2.5.10 Environmental impact – It is thought that there will always be some need for car travel and as such EVs will have the biggest impact on emissions. However, EVs can produce micro-particulates due to their regenerative brake systems and tyre wear. The health impacts of these

are still being understood, but high concentrations have been linked to neurological and cardiopulmonary illness and disease. It is necessary to reduce the risk of exposure to microplastics where possible.

2.5.11 Grid capacity – It may be necessary to think about where to direct funding so that it can be used to upgrade sub-stations so that the private sector can install charging points. It is thought that existing sub-stations would be maintained as space for others is limited, they would also need to be secured from the public and planning issues would ensue. In theory, the private sector could take on a larger number.

2.5.12 It may be the case that walkways or parking spaces may be compromised for infrastructure to be installed.

2.5.13 The government are currently consulting on removing the need for local authorities to approve the installation of charging points. This would mean that operators have a statutory right to install, maintain and access their asset at any time, and the council could lose the ability to control their traffic management. This could increase the level of private-sector charger supply, but this could mean that charging points would only be placed in areas where operators thought they would be profitable. The council could buy equipment and can enter a contract with the supplier to provide it, however, this would mean subsidising the ability for a private company to make a profit on the network. Another possibility is a concession agreement where over a certain level that money gets returned to the local authority, the Council could lease space on the highway for the private sector to install charging points where they could subsequently pay rent to the Council. With a target of 80 to 75% being provided by the private sector, this would put the Council in a weak position as it would lose a lot of influence and a lot of control whilst also trying to attract the level of investment needed.

2.5.14 Cost of EVs – EVs currently come at a higher price premium and the second-hand market is still developing due to the technology being new. Additionally, when electricity prices are high, they can sometimes be more expensive than diesel and petrol cars (unless the user has a dynamic tariff). Batteries can be expensive to replace once they have degraded.

2.5.15 Risks of EVs – Material in an EV is toxic in the event of a fire and as such the process for extinguishing EV fires is complex.

2.5.16 Challenges – Authorities are coming to grips with issues, however, there is uncertainty about the future, for example, if infrastructure is installed on streets and then petrol-station-like facilities are developed for EVs, then this could back the Council into a corner. Additionally, there is the danger of new technology making charging points installed obsolete. Other challenges include existing charging points not being

standardised, issues such as air conditioning in cars affecting battery life, and batteries not working well in sun-zero temperatures.

2.5.17 Market Dynamics - The technology still has a large price premium. This is projected to chance once the first wave of EVs come through the market and the second-hand market comes around.

Currently, the benefit of EV cost is only felt if they can be charges at home overnight. If a user is relying on public charging, then running an EV is more expensive than running a petrol car. Other day-to-day costs include an insurance premium as EVs are newer.

It is thought that the main drive for EV ownership is the desire to be an early adopter of the technology and users having a strong climate stance.

A risk in the Council trying to anticipate where demand was coming from was that an area could become saturated with a large number of charging points that could become underused. Another consideration is the pace of technology, and that installations could become obsolete very quickly. Therefore, it would not be desirable to end up with a very large network and be tied into a contract with the provider and then to find out that they're not suitable for whatever the current or future market is.

2.5.18 Imports - Whilst EVs from overseas could be cheaper initially, they may become more expensive due to needing to adapt to meet legal requirements in other countries.

Additionally, it is necessary to understand that duties and charges are set by the Treasury and are not always predictable.

Whilst more and cheaper EVs due to imports cannot be ruled out it is not easy to predict and could be many years away.

2.5.19 Assessment of, and response to demand - The EV Strategy looks at the potential demand curve for a number of areas of the city. This considers household income, vehicle availability and the number of vehicles per household to ascertain who might purchase EVs.

The National Grid has been worked with to look at substations and identify the likely level of demand and the level of supply so that the number of installations can be maximised. There was also a correlating list of people who expressed interest in purchasing EVs but did not have the ability to charge them. There were around 100 such people, but no clusters around particular wards or streets.

2.5.20 Free charging – It was noted that subsidies could be offered to operators, however, operators paid for energy at a business rate which was not capped, and this could be disadvantageous.

The value to the authority also needs to be considered.

A large number of National Trust estates have solar panels, so it is possible that they might sell more power to the National Grid and then drain overnight to become cost neutral. In contrast, the Council did not have a large estate of free space, the majority of space was highway. The idea of solar roads could be considered, but they would come at a considerable cost and may be of limited effectiveness due to the design or the weather.

2.5.21 It is not known at this point how many taxis are EVs, however, there needs to be consideration on how taxi drivers are encouraged to use low-carbon cars. Batteries needed to be assessed at the vehicle point of service and registration. Battery health should also be assessed at MOT. Many batteries had a charge cycle and a discharge cycle. If a battery was used regularly and charged regularly than it will deteriorate. Battery technology is advancing, and it is necessary to think about how taxi drivers can be supported in EV use. Taxi drivers are an important part of the social fabric of the city, so it is important that investing in EVs does not end up costing them more.

In terms of illicit battery modifications, such as illegally daisychaining, it could not be ruled out, however, EVs have sophisticated computer systems, so it would be difficult to carry out and possibly dangerous.

2.5.22 Petrol Stations - The Director of City Transport was not aware of any petrol stations in Leicester that had completely converted to providing fast charging. However, there were charging points and hubs in areas such as Cobham Services and BP had installed some rapid chargers that charged within 5-15 minutes. It was hoped that a combination of advances in battery technology and the increased awareness amongst clients would make the use of charging points comparable to purchasing petrol.

It could get to a point whereby the mechanism and method would be for a user's parking area to become their 'petrol station'. This would mean a very large increase in the offer and competition amongst providers.

2.5.23 If vehicles could hit 400-500 miles per charge, it would be a similar distance to miles-per-tank on a petrol car.

2.5.24 By April 2025 it is possible that 50% of cars could be electric or hybrid.

2.5.25 Off-peak charging appears to be decreasing.

2.5.26 The cost of ownership of an EV includes having the home as a charging facility, which may also mean installing a driveway.

2.6 Benchmarking

2.6.1 A trial of EV Charging fitments had been undertaken by Oxford City Council. We are still awaiting the full outcome, but we are aware that some minor conflict had been caused with residents feeling a sense of ownership over the space and the impact houses with multiple vehicles may have.

2.6.2 The progress and contents of the LEVI bids of other local authorities was being examined, particularly in terms of what was delivered and how, as well as the current costs. It was considered as to how other local authorities asked operators for what was needed.

2.6.3 Some local authorities have adopted an EV strategy, however, they varied in the amount of detail within them; some were around a page and others, such as Warwickshire County Council, were more detailed, showing what they wanted to see and how they wanted it enacted.

2.6.4 It is important to note that much of this learning has come from early adopters, many of which are authorities that are financially advantaged, many of these are in London where the market is different due to wealthy EV users in many Boroughs.

2.6.5 Many strategies were somewhat cautious in their commitments. They have expressed the will to work with others, but not bold in moving forwards. It is necessary to work with others to ensure that the right path is taken.

2.6.6 Some local authorities already have LEVI funding. These are mostly London Boroughs who in many cases already had a supplier.

2.7 Summary of Task Group Conclusions

2.7.1 Encouraging supermarkets to provide more charging points could be a good approach as people could then charge while they shopped.

2.7.2 The LEVI grant looks to install 7kW overnight charges in deprived areas. However, it was thought that there were areas with more demand such as Queens Road or Narborough Road as having rapid chargers there would allow people to charge whilst shopping.

2.7.3 If the private sector delivered where they could get a return, then that would leave a middle ground in which people who wanted an electric vehicle (EV) could be supported by the Council in areas where there is not demand saturation.

2.7.4 The Council currently sees itself in a steering role for investment rather than leaders on technology that could be out of date soon.

2.7.5 The LEVI funding of £3m will not be enough to install residential chargers everywhere.

2.7.6 Officers are not yet confident in the sustainability of the technology. The LEVI fund prefers a 15-year contract with a single provider, as such caution should be taken about entering such a long commitment when the technology involved could become obsolete.

2.7.7 LCC has not seen enough benefit from either Blink or Char.gy to justify a 15-year commitment. The result of the commitment would be about 50 chargers around the city. This would not be a good return in comparison to using that as seed money for private sector investment and potentially doubling or tripling that number.

2.7.8 The best position would be to outline where the Council sees electric vehicles as part of the transport mix. It is important to note that EVs don't solve congestion and tyre and brake wear are an issue. So EVs are by no means a sole solution. Especially since it was sometimes the case that the electricity was provided through fossil fuels. It is also important to note that scrapping a petrol vehicle for an EV would have a carbon outcome. Therefore, EVs certainly have a role to play, but caution is needed when promoting them as a replacement for petrol cars.

2.7.9 Having EV infrastructure can send a mixed message about the promotion of walking, cycling and public transport.

2.7.10 Battery technology is constantly improving, and the technology of residential chargers could become outdated. If people did not use their residential chargers and/or they became outdated, it may be that the Council would have to pay to get them removed.

2.7.11 Commercial and business sites have a different power need. It may be that investment in the private sector and job creation could be lost if lots

of chargers were installed without considering the other needs in the area.

2.7.12 Charging points in schools would also come with challenges such as the charge needing to come from the school supply, meaning that charging points would need to be sold or given to companies such as Blink or Char.gy. Another challenge would be that they would only be available on weekends and school holidays, and therefore might not drive the level of demand.

3 Financial, Legal and Other Implications

3.1 Financial Implications

The roll-out of public EV charging on residential streets is dependent on government funding. The Council has received an indicative LEVI grant allocation of £3.38m towards this. In addition, a revenue grant of up to £110k per year is received to facilitate the wider development of the EV installation strategy. As noted in the report there is potential for the Council to generate income from the leasing of highway space, but this is considered very limited.

Stuart McAvoy – Head of Finance, Ext 37 4004

3.2 Legal Implications

There are no direct legal implications associated with this report.

Kamal Adatia – City Barrister, Ext 37 1401

3.3 Equality Implications

Under the Equality Act 2010, public authorities have a Public Sector Equality Duty (PSED) which means that, in carrying out their functions, they have a statutory duty to pay due regard to the need to eliminate unlawful discrimination, harassment and victimisation, to advance equality of opportunity between people who share a protected characteristic and those who don't and to foster good relations between people who share a protected characteristic and those who don't.

Protected Characteristics under the Equality Act 2010 are age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, sexual orientation.

In development of an EV strategy, it is important that equalities considerations are taken into account. It is important that charge points are ultimately accessible and usable. Consideration should be given to the type of infrastructure that can be supported and how to best ensure that the provision of electric vehicle charging does not disadvantage other users and does not obstruct pavements or highways and is not hazardous to pedestrians. In order to demonstrate that the consideration of equalities impacts has been taken into account in the development of any proposals and as an integral part of the decision-making process, it is recommended that as any proposals move forward an Equalities Impact Assessment is undertaken. The findings of an Equality Impact Assessment should be shared, throughout the process, with decision makers in order to inform their considerations and decision making.

Surinder Singh, Equalities Officer, Ext 4148

3.4 Climate Change and Carbon Reduction Implications

As noted within this report, the Carbon Neutral Roadmap produced for Leicester highlighted the replacement of fossil fuel vehicles with EVs as a vital part of the transition to net zero carbon emissions for the city. The roadmap calculated that road transport currently accounts for around 24% of all carbon emissions in the city and set out the importance of switching to using electric cars and vans as quickly as possible, alongside a greater role for active travel and electrified public transport. This is also reflected in the council's draft Climate Ready Leicester Plan 2023-2028, to be brought to Full Council for adoption later in the year. Therefore, this is a key area of work for achieving our ambition to reach net zero carbon emissions by 2030.

Based upon the current mix of electricity provided via the national grid, EVs emit around 45% less carbon per kilometre travelled than a fossil fuel-powered car. The emissions from EVs will also steadily reduce to net zero as the UK grid decarbonises by 2035, based on current plans. Whilst EVs do have higher embodied emissions in manufacture, an average EV will make up this difference within around 2 years of use. Research also shows that emissions of particulate matter from brake and tyre wear are generally equivalent for EVs and fossil fuel vehicles. It's also worth noting that EV car batteries can potentially be used for grid

storage both while used in vehicles and at the end of their useful lives, delivering further decarbonisation benefits.

Aidan Davis - Sustainability Officer, Ext 37 2284

4 Summary of Appendices

Appendix A - Electric Vehicle Charging Points Presentation

Appendix B - EV Charging Points Scoping Document

Appendix C - Draft Electric Vehicle Transition and Infrastructure Strategy

Appendix D - Response from Charge Point Operator Char.gy

Appendix E - EV Charger Usage Presentation

5 Officers to Contact

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