



Electric Vehicle Charging Points - Data Collaboration Workshop

Summary and Recommendations 24 March 2020

Workshop background	2
Objectives	2
Participants	2
Suggested initial approach	3
Establishing relationships with charge point operators and furthering discussions with other stakeholders	3
Methodology	4
Exercise 1 - Outcomes	4
Exercise 2 - Actions	5
Exercise 3 - Insight	6
Exercise 4 - Enablers	7

Workshop background

On Tuesday 24 March, the London Office of Technology and Innovation (LOTI) held a workshop with data and other professionals in London boroughs, government organisations and the private sector to determine the best approach for creating a single view of London's EV charge point network.

Objectives

The workshop objectives were to establish:

1. The outcomes we wish to achieve (and for whom) and the role of data in achieving those outcomes
2. Specific data fields required from operators or other partners
3. Setting up a successful pilot - who would like to be involved and what contribution they can make

Participants

The workshop was attended by representatives from: Digital Catapult, LB Ealing, LB Greenwich, LB Hounslow, London Councils, Ordnance Survey, Oliver Wyman, Quantenergy, the GLA, and Transport for London.

Suggested plan of activities:

Holding this workshop was a pivotal first step in bringing together key stakeholders actively working or planning to work on EV charge point related projects, to establish common outcomes and a more coordinated approach.

More needs to be done to scope a project that delivers meaningful outcomes for the personas identified in this workshop and which ensures alignment with other work in this area.

In the meantime, LOTI central team suggests an initial approach outlined below, which might help address some of the suggestions made during the workshop, ***with the view to iterating and adapting our approach as we go along.***

Suggested initial approach

Establishing relationships with charge point operators and furthering discussions with other stakeholders

- Initiate discussions with Charge Point Operators via the Charge Point Operators Forum about: a) reporting of real-time EV charge point usage data (for citizens to see when EV points are available) and b) data standards for reporting usage data to boroughs. **Action: LOTI central team** to contact Roulin from the GLA, to find out the date of the next meeting.
- **LOTI central team** to better understand and align with London Councils' role coordination function for EV charge points.
- Ensure alignment with central government approaches. **Action: LOTI central team** to discuss further with the Office for Low Emission Vehicles (OLEV).
- **LOTI central team** to hold further discussions with GLA's Energy and Environment team and Quant energy about the potential of jointly delivering aspects of or the entire project.
- **LOTI central team** to investigate whether current procurement contracts undertaken via the Go Ultra Low City Scheme framework and Source London include clauses relating to real-time usage data sharing (links to the citizen need) and reporting to boroughs (including data standards).
- **LOTI central team** to arrange a meeting with Zapmap to understand their use of data and potential for working with them.

Citizen outcomes - showing proof of concept for real-time data sharing on the London DataStore

- Ensure all charge points installed as part of the Rapid Charge Scheme (TfL) and Go Ultra Low City Scheme are represented in the GLA's existing map. **Action: LOTI central team** to discuss with GLA's Business Intelligence team, London Councils and TfL about how we do this.
- **LOTI central team** (potentially with the GLA and Quantenergy) to set up a three month pilot with two or three operators (details to be confirmed).
- **LOTI central team, boroughs and other partners** to evaluate pilot and explore ways for scaling up, if appropriate.

Borough outcomes - gathering and using insights from usage data

- Create a standard for data reports on EV charge point usage. **Action: LOTI central team** to work with boroughs, London Councils and TfL to

define data standards for energy usage reports from operators and ways in which this can be implemented.

- **LOTI central team** to explore ways in which boroughs can quickly and efficiently develop insights from the operators' usage data reports which can inform their decision making (using the Camden data model as an example). This can build on the experience of working with similar data for Sharing Cities as a starting point.
- **LOTI central team** to create standard clauses for boroughs to include in future procurement of EV charge points.

Methodology

LOTI follows an [outcomes based methodology](#), which ensures that projects are set up for success and developed in a way that meets the users needs.

1 - OUTCOME	
<p>What's our desired outcome?</p> <p><i>E.g. "This specific person is better off in this specific way as a result of our work."</i></p>	
2 - PROBLEM	3 - ACTION
<p>Other than a lack of data, what specific problems or barriers are preventing our desired outcome?</p> <p><i>E.g. People, processes, policies, ways of working, silos, resources, etc.</i></p>	<p>WHO could do WHAT differently if they had better information?</p> <p><i>Hint: think of a specific person doing a specific thing in a specific context</i></p>
5 - ENABLERS	4 - INSIGHT
<p>Beyond the data product, what else is needed to achieve our desired outcome?</p> <p><i>E.g. People, processes, policies, ways of working, silos, resources, etc.</i></p>	<p>What would someone need to see on a screen to enable the action (the 'data product')?</p> <p><i>This might be a list, a map, a heatmap, a dashboard, an alert etc.</i></p> <p>What data is essential to create that data product? Who has it? Can we use it legally and ethically?</p>

Exercise 1 - Outcomes

In this exercise, participants were invited to discuss the desired outcomes of the project through the lens of different users (personas) of the EV charge point data. The following personas / user groups were identified as being most important:

- Outcomes for **Citizens** - For citizens who don't yet own an electric vehicle, increased confidence about access to the right infrastructure within easy

reach. For citizens who own an electric vehicle, ease of access to real-time information about charge points, wherever in London they may be.

- Outcomes for **Transport Planning Officers** - Better assessment of future needs (based on usage data).
- Outcomes for **Operators** - Better business planning through accurate usage information (early indications suggest this might be a commercially sensitive topic for energy suppliers and operators).

The following points were made during the discussion, which contributed to the identification of the three outcomes above:

- A large number of charge points exist in boroughs and residents would be interested to know that their preferred charger is available and working.
- Residents would like to be well informed. They'd like to be able to identify the location of all charge points and have real time information on their availability.
- Resilience of infrastructure is an important consideration for District Network Operators who would like to have more insights on their real-time usage in order to understand the impact on the grid that crosses borough boundaries.
- Transport planners would use charge point usage data to make informed decisions for future needs.
- Real-time information can enable app developers to better surface information to citizens.
- City Planning teams, Sponsorship teams and others in organisations such as TfL could use utilisation data to inform the deployment of rapid charge points.
- Real-time data on usage could inform the future delivery of charge points across London. This would enable the shift required on where and how energy is used.
- City Planners and other teams at the GLA could plan infrastructure development better if they had better information.
- Consumer confidence in electric vehicles might increase if there's better information on location, availability etc.
- EV charge points in private residences are a problem as it's not clear whether they're captured by boroughs.
- Operators would be able to make better decisions about charge point installations.

Exercise 2 - Actions

Once outcomes were agreed for each persona, participants were then invited to discuss and agree **who** might do **what** differently to achieve the desired outcomes. There was general agreement that real-time data can unlock optimal deployment of future EV charge points and increase consumer confidence.

Key points to note were:

- Residents would be able to see where their nearest available charge point is.
- Policy makers and transport planners would make more informed decisions about deploying the right number of chargers in the right locations and depending on the usage perhaps consider the maximum distance from an EV charger.
- Residents would have greater confidence in using EV charge points which might lead to an increase in electric vehicle uptake. Consumer confidence was highlighted as an important factor.
- Operators would have better information about demand and might make better decisions about meeting that demand in a sustainable way.
- Utility Providers would be interested in the link between neighbourhood characteristics such as flood risks and EV infrastructure.
- Asset sharing - citizens might be willing to share the use (and therefore the cost) of the EV charge points installed in their private properties.
- If operators had better information they would know where to invest in terms of capacity. An unintended consequence of this is that operators might decide to heavily invest in prosperous areas, if for example, data shows high usage.
- Some operators are sharing data which is showing an increase in EV charge point usage. Changing perceptions of operators is important with an emphasis that real-time information enables better decision making.
- Better understanding of the value of data: cost benefit of decarbonisation
- Things to consider:
 - Deployment of EV charge points in Controlled Parking Zones (CPZ)
 - Smart charging

Exercise 3 - Insight

In this exercise, participants discussed what the data product might be, i.e. what they would need to see on a screen to enable the actions identified in exercise 2 and what data might be needed to create this product. Participants suggested the following as potential end products for each persona created in exercise 1:

- Citizens might use a map showing where the nearest EV charging point is, whether it is working and available. Other useful functionalities suggested included: the ability to see charge points from different operators and booking functionality (which might be a useful feature for managing utilisation of single, fixed assets). It's important to consider the management (enforcement for example) of the booking function especially if changes are required to be made to existing EV charge points.

- Transport Planners might need to see geo-spatial information of existing EV charge points and real-time usage (maybe even by charge point) to make the right decisions about future deployment. A heat map showing the volume of usage was suggested as useful.
- Operators might be concerned about the commerciality aspect and so access to a secured space that allows future information on potential locations might be helpful.

Other points made in the discussion included:

- Camden's existing model which captures requests, EV charge points, demographic information, parking, usage and high st / residential area. Different Councils have different approaches for decision making but the most important point is real-time information.
- Interoperability of data is important in unlocking the value of data and meeting targets for carbon reduction.
- Creating the marketplace, allowing innovators to address needs is another important element.
- Need to take into account the role of London Council's EV coordination function in all this.
- The GLA has demographic and town centre and high street information.

Exercise 4 - Enablers

In this exercise, participants were invited to explore what other conditions needed to be in place, other than data and technology, to enable the outcomes from the personas created in exercise 1.

The discussion focused around these areas as key **enablers**:

- Other key stakeholders other than boroughs for example, operators, Zapmap, Source London, CPO forum
- Commerciality of data and data sharing (legal and secure data sharing)
- Sustainability of the tool or platform
- If more than one product needed, what are the foundations required

Feedback from participants was as below:

- EV charge point operators are vitally important in making any of this work, so we need to engage better with them and get their buy-in. Attending the CPO forum is one way to address their concerns and fears and help to start constructive conversations about real-time data.
- Existing contracts through Source London don't always have data sharing clauses. Future contracts for charge points commissioned by boroughs should

have clauses on real-time data sharing. Planning permission is not always required to install charge points so less levers from local authorities.

- Good examples to look at: University of Applied Services in Amsterdam - EV charging points data mapping and sharing.
- Zapmap and London's Data map exist and we should avoid recreating what already exists.