



## ELECTRIC VEHICLE USE IN ROTHERHAM

Analysis report of a public consultation survey exploring the distribution of EV use across the borough and investigating public opinions regarding off-street public carpark charging facilities.

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### Summary of Findings

- Although EV ownership is observed throughout Rotherham, three main “EV hotspots” were identified. The most prevalent use of EVs is found in and around the northern wards of Wath and Hooper, followed by the more central locations of Sitwell and Bramley and Ravenfield, and to a lesser degree in the south-east around Dinnington.
- Almost one third of EV owners report not having a suitable place to charge their vehicle during the day. This appears to be less of an issue at night, with almost 90% of EV users having a suitable place to charge their vehicle.
- A vast majority (85%) of EV users report that they would use public off-road carpark charging points.
- Nearly 80% of petrol and diesel vehicle drivers would be more likely to consider transitioning to an electric vehicle if public off-road carpark charging points were more readily available in their local area.
- Qualitative participant feedback suggests that the most convenient locations for future public charging points would be in already frequently used carparks, such as those of shopping centres, supermarkets, leisure centres, places of work, hospitals and schools.
- The main concerns raised by survey participants relates to charging point maintenance, parking/charging fees, charging speeds, safety, disabled access and ensuring that spaces aren’t occupied by petrol and diesel vehicles. These concerns and their possible solutions are covered in greater depth in the “*Qualitative Feedback from EV Users in Rotherham*” section of this report.

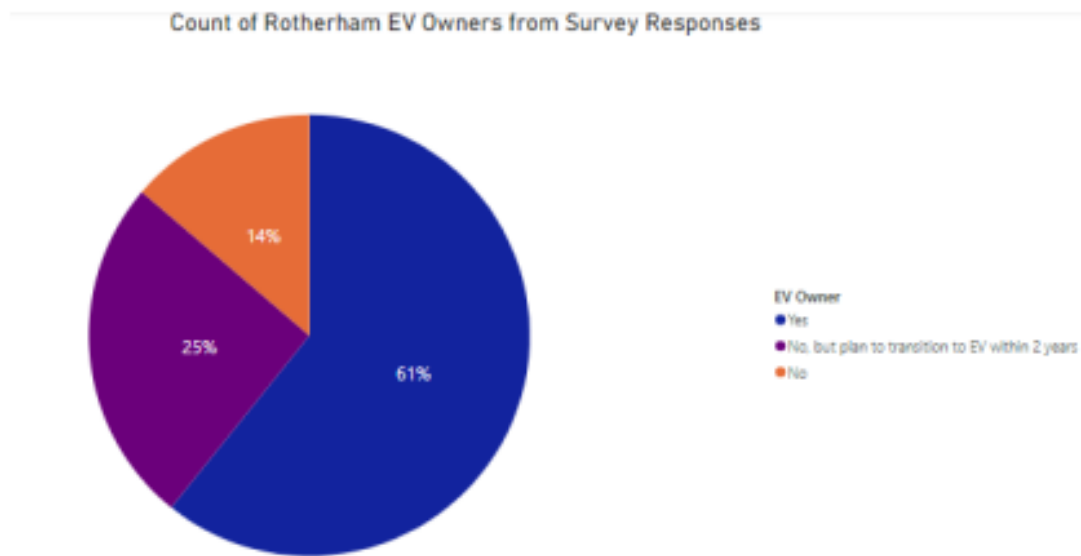
### Reporting Aims

- Assess the distribution of EV ownership across Rotherham in order to inform the geographical placement of future EV charging points.
- Identify wards and specific postcodes where EV users are currently reporting difficulties in accessing charging points.
- Explore popular opinions of public off-road carpark charging points from both EV and non-EV users.
- Invite general feedback from EV users across the borough regarding charging points in an attempt to better understand how their EV charging needs can be met.

### Target Group and Methodology

The findings of this report are based upon the results of a 10-question survey (see *Appendix 1*) distributed via the Consultations section of Rotherham Metropolitan Borough Council’s website. Participants were largely recruited through the use of The Council’s social media platforms. 108 respondents took part in the survey, however 7 participants’ responses were omitted from the study as

their postcodes identified them as not residing within the borough. As shown in *Figure 1*, of the 101 valid participants included in the study, 61% ( $n=62$ ) reported that they currently own an electric vehicle or have a household member who owns an electric vehicle, 25% ( $n=26$ ) planned to buy their first electric vehicle within the next 24 months and 14% ( $n=14$ ) did not own an electric vehicle, live with anyone that did, or have any plans to buy one in the near future.



*Figure 1: Pie chart representing the proportion of survey respondents who current own or plan to buy an EV*

### Electric Vehicle Distribution within Rotherham

As highlighted in *Figure 2*, electric vehicle ownership appears to be most prevalent in 3 distinct areas of the borough. These are in the north around the wards of Wath and Hooper, slightly south-east of the center in Sitwell and Bramley and Ravenfield and to a slightly lesser degree further south-east in the area surrounding Dinnington. A further breakdown of this distribution can be seen in *Figure 3*. For a comprehensive list of EV ownership by postcode, refer to *Appendix II*.

Appendix 3 Resident EV Survey  
 Rotherham Electric Vehicle Charging Infrastructure Expansion

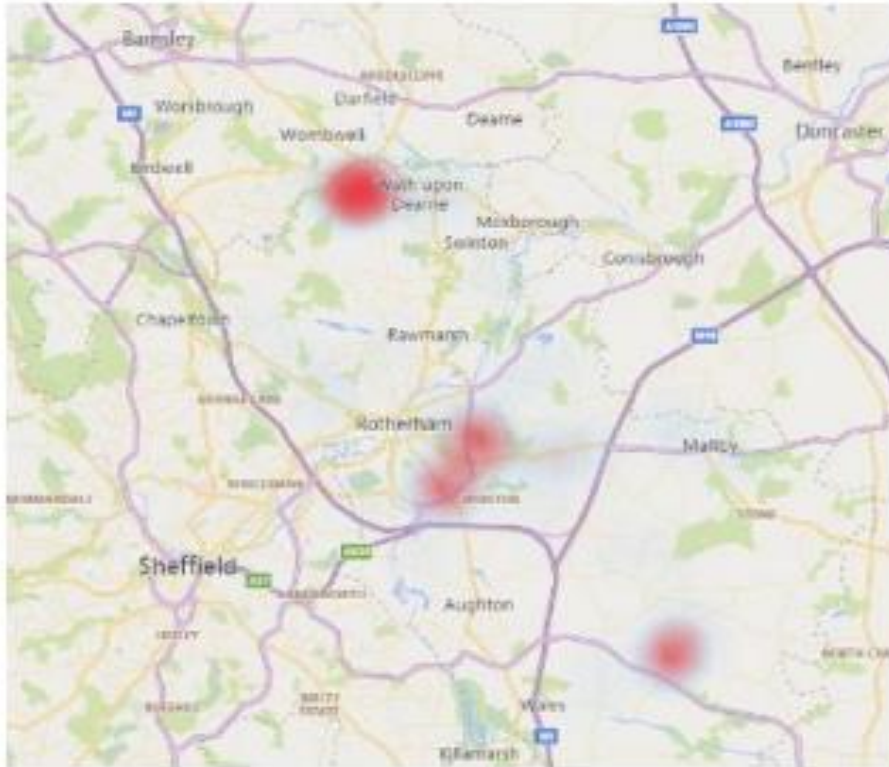


Figure 2: Heat Map showing density areas or "hotspots" of EV ownership

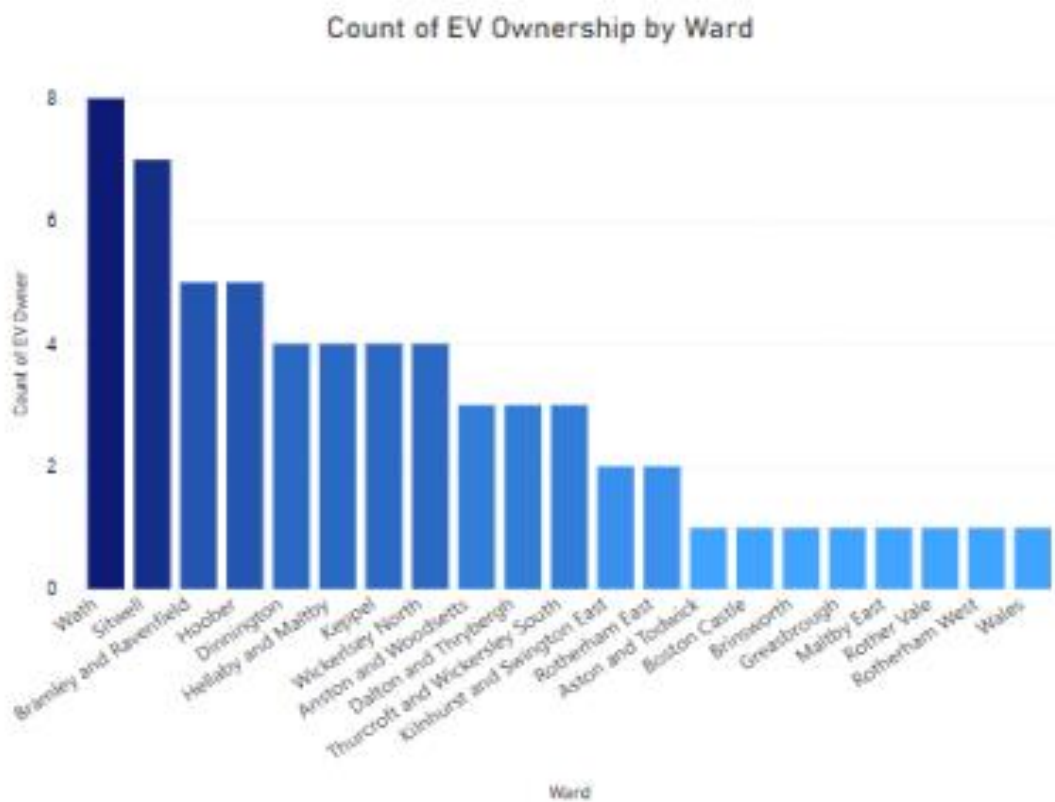


Figure 3: Bar chart showing count of participants living in a household with an EV by electoral ward

### Opinions of EV and Availability of Public Charging Points

Of the 62 participants living in a household which owned an electric vehicle, 31% (n=19) reported that they did not have a suitable place to park/charge their vehicle during the day (see Figure 4) and 11% (n=7) did not have a suitable place to park/charge at night (see Figure 5).

EV Owners' Response to the Question "Do you have a suitable place to park/charge your vehicle during the day?"

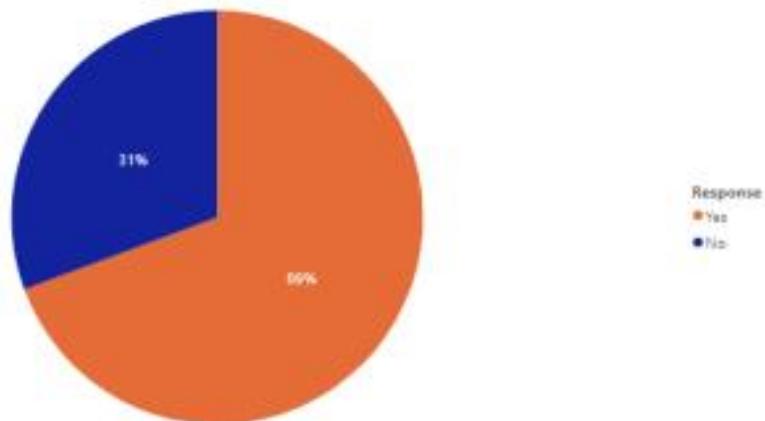


Figure 4: Pie chart showing EV owners with suitable place to park/charge during the day

EV Owners' Response to the Question "Do you have a suitable place to park/charge your vehicle at night?"



Figure 5: Pie chart showing EV owners with suitable place to park/charge at night

Appendix 3 Resident EV Survey  
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The exact areas which have been highlighted by Rotherham residents as having notably unsuitable parking/charging facilities for electric vehicles during the day are outlined in *Figure 6* and *Table 1* below and the same information for a lack of suitable parking/charging facilities at night are highlighted in *Figure 7* and *Table 2*.

Both nocturnal and diurnal trends seem to show a similar geographical pattern, with slightly (2) more participants reporting that they have difficulty accessing parking/charging facilities only at night. It should also be noted that postcodes and map points are based on parking locations during the day and night, which in some cases differs from the residing address of the participant.



*Figure 6: Map highlighting parking locations which residents have reported as being difficult to access EV parking/charging facilities during the day*

Daytime Parking Location	Ward
S66 1WN	Bramley and Ravenfield
S66 2DQ	Bramley and Ravenfield
S65 1DL	Grandsbrough
S66 8RT	Holesby and Malby
S63 6ET	Hooper
S61 3LZ	Kippel
S65 2LP	Rotherham East
S65 3DL	Stwell
S66 8QV	Stwell
S66 1JR	Thurstoft and Wickersley South
S63 6BF	Wath
S63 6BU	Wath
S63 7DR	Wath
S602UD	Wickersley North

*Table 1: Locations by postcode and ward identified as having poor availability of EV parking/charging facilities during the day*

Appendix 3 Resident EV Survey  
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Figure 7: Map highlighting parking locations which residents have reported as being difficult to access EV parking/charging facilities at night.

Ward	Night-Time Parking Location
Bramley and Ravenfield	S65 1WN
Bramley and Ravenfield	S66 2QJ
Gransbrough	S61 4PZ
Heloby and Maltby	S66 6AL
Heloby and Maltby	S66 6BT
Hoober	S61 6BF
Hoober	S61 6ET
Kippel	S61 2LZ
Rotherham East	S65 2LP
Sitwell	S60 3BA
Sitwell	S65 3DL
Tharcroft and Wickersley South	S66 1AR
Wath	S61 6BF
Wath	S61 6BU
Wath	S61 7DR
Wickersley North	S66 1AN

Table 2: Locations by postcode and ward identified as having poor availability of EV parking/charging facilities at night

As well as assessing distribution and ease of accessibility of charging facilities, the survey also aimed to gauge EV owners' willingness to use off-street public carpark charging points. Of the 62 EV owners taking part in the study, 85% (n=53) reported that they would make use of off-street car park charging points.

EV Owners' Openness to Using Off-Street Carpark Charging

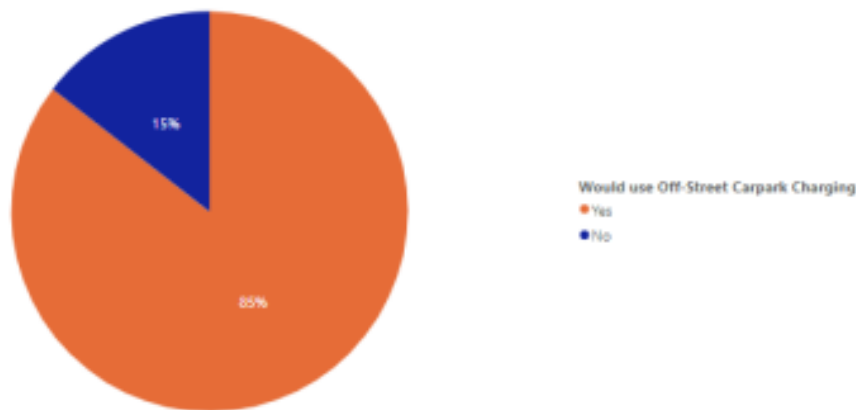


Figure 8: Pie chart showing percentage of EV users who reported that they would use off-street public carpark charging points

Similarly, of the 14 participants who did not have an EV owner within their household, 79% (n=11) reported that they would be more likely to consider transitioning to an electric vehicle if charging points were more readily available in public carparks in their local area.

Non EV Owners who would Consider Transitioning to EV if there were Increased Public Charging Facilities

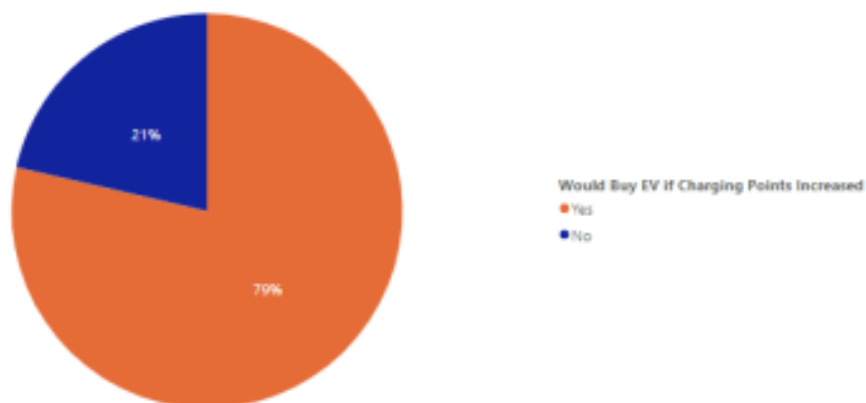


Figure 9: Pie chart showing percentage of non-EV users who reported that they would be more likely to purchase an electric vehicle if off-road public carpark charging facilities were more readily available.



### **Qualitative Feedback from EV Users in Rotherham**

In addition to the quantitative responses outlined above, participants of the online survey were also given the opportunity to raise any concerns or suggestions they had regarding the future installation of public EV charging points throughout the borough. Responses were categorised into the following six themes:

- Location Suggestions
- Ease of Access and maintenance Concerns
- Price Concerns
- Speed of Charging Concerns and Solutions
- Safety Concerns
- Accessibility Issues for Disabled Drivers

The following sections will offer a summary of the main topics covered within each of these thematic areas. For a full transcript of qualitative responses, please refer to the colour-coded thematic table in *Appendix III*.

#### Location Suggestions

A total of 22 location suggestions were received from survey participants. Of these, 9 participants made the suggestion that charging points should be added to existing and frequently used car parks and places of interest, such as supermarkets, shopping centres, leisure centres and libraries.

In addition to this, 3 participants suggested the introduction of lamppost EV charging and a further 2 suggested introducing charging points in the car parks of places of work, schools and hospitals.

Several suggestions for specific charging point locations were also mentioned within the qualitative responses, such as The Tanyard at Wickersley, Rotherham Market's car park, Kimberworth as well as a request for further charging points in Maltby.

#### Ease of Access and Maintenance Concerns

21 participants raised concerns relating to the ease of access and maintenance of public charging points. The most frequent of these concerns related to EV users being unable to currently access charging points due to the space being occupied by petrol and diesel vehicles or by electric vehicles that were overstaying past the point of being fully charged. Several participants called for stricter monitoring and policing to prevent this problem.

Concerns regarding the maintenance of public charging points were the second most frequently mentioned issue within this category, with 5 respondents stating that they had encountered broken or faulty charging points.

Other areas of concern related to a lack of charging in more rural areas of the borough, a lack of shelter from the rain at public charging points and an insufficient number of charging points in a given carpark, resulting in charging spaces often already being occupied.

#### Price Concerns

8 participants raised concerns for the price of EV charging and parking. Among the issues raised, participants requested that charging points be placed in locations where parking is free. 2 participants called for the introduction of a free on-street and council parking permit for EV users, similar to those available in Leeds and Sheffield, which it was felt would act as an incentive for drivers to make the transition to EV technology.

#### Speed of Charging Concerns and Solutions

5 participants mentioned issues regarding the speed of charging, as well as offering some potential solutions. The geographical placement of fast, and usually more expensive, charging points and slower cheaper points was mentioned twice within the qualitative results. It was suggested that the former would be better suited in areas further from the town centre where journeys are likely to be longer and stops likely to be shorter, whereas slower cheaper charging points would be better suited to areas where people are more likely to park for longer periods of time.

Other notable charging speed concerns were the need for faster charging points in Maltby and a general need for good cable reach at faster charging points.

#### Safety Concerns

11 survey responses related to concerns regarding the safety of charging points. The majority of these related to a reluctance to leave electric vehicles charging in areas that were deemed to be at high risk of theft and vandalism. Similarly, concerns were raised regarding personal safety whilst waiting for vehicles to charge. Several solutions were offered to these concerns, including placing charging points in well-lit publicly visible areas and the installation of CCTV.

#### Accessibility Issues for Disabled Drivers

Finally, yet arguably most importantly, several suggestions were made for how to make public charging points more accessible for disabled drivers, with 5 participants raising the issue. Possible solutions included making charging bays wide enough to allow access to wheelchair users, giving users not only enough space to maneuver between their vehicle and the charging point, but also allowing them to open their doors wide enough to enter and exit their vehicles without difficulty. Similarly, it was recommended that charging points should be placed on flat surfaces with low curbs and that charging

instructions should be clear and placed at a suitable height.

#### **Recommendations**

- Consider introducing more charging points in the areas identified by survey responses as being “EV hotspots.” Namely, the areas surrounding Wath and Hooper, Sitwell and Bromley and Ravenfield and Dinnington
- Explore the feasibility of introducing additional charging points in the areas highlighted in *Figures 6 and 7*, especially in areas with multiple individual post code points within close proximity of one another, such as the cluster seen around Brampton.
- Ensure that charging points are well-maintained and regularly serviced. If not already in place, establish some form of public reporting procedure for damaged or out of order charging points to ensure that repairs can be made quickly where necessary.
- Alleviate public safety concerns by making sure that EV charging points are located in well-lit, monitored public spaces.
- Ensure that charging points are accessible and wheelchair friendly.