

Consultation on the

Future Development of Electric Vehicle Charging

June 2021







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SUMMARY

- This section provides a summary of the main findings from the Let's Talk Electric Vehicle Charging consultation on the future development of electric vehicle charging points across Rhondda Cynon Taf.
- The consultation was conducted in-house using the Council's new consultation and engagement website, <u>Let's Talk RCT</u>. The consultation started on the 19th April and ended on the 31st May 2021.
- In addition to the specific consultation on the future of Electric Vehicle Charging Infrastructure, we have also started to develop an ongoing Climate Change conversation. The aim is to work with services and partners to develop appropriate engagement for individual climate change projects based on the detailed action plans that underpin the climate change strategy.
- 325 online survey responses were received.
- 122 poll responses were received.
- 222 places were identified as potential electric car charging points through the pin dropping function on the map.
- 80% of respondents to the survey currently own 2 vehicles or less.
- 55% of respondents have access to their own private off-street parking whilst 42% have access to on street parking only.



- 83% of respondents or someone in their household do not currently own an electric vehicle.
- 56% of those who do not currently own an electric vehicle said they are 'very likely' or 'likely' to consider purchasing one.
- 57% of these respondents said they would intend to purchase an electric vehicle within the next 3 years.
- Of those that said they were 'unlikely' or 'very unlikely' to consider purchasing, the most common reasons were the financial costs of purchasing and charging a vehicle along with a lack of suitable charging facilities either at home or near to their residential area.
- Of the respondents who currently own an electric vehicle, or have someone in their household who owns one, 68% currently use a home charging point.
- 33% of current electric vehicle owners said they charge their vehicle 1-2 times a week.
- 95% of all respondents 'strongly agree' or 'agree' with the statement that a lack of accessible charging points is a barrier to buying an electric vehicle.
- 38% of respondents said the installation of a public electric vehicle charging points near their residential area would 'definitely' increase the likelihood of them owning an electric vehicle.
- Of these respondents, the main themes that emerged in the comments included:
 - Confidence in their ability to charge across the borough
 - o Confidence in using a rapid charge compared to a slower one at home
 - o Overcomes barrier of not having the ability to charge at home
- 36% of respondents said the installation of public charging points would 'possibly' or 'maybe' increase the likelihood of them purchasing an electric vehicle.
- Of these respondents, the main themes that emerged in their comments included:
 - Secure location
 - o Convenient and easy to use
 - Affordable costs to charge
- 26% of respondents said the installation of public charging points would 'not likely' or 'not at all' increase the likelihood of owning an electric vehicle.
- The comments from these respondents contained the following themes:
 - o Prefer to charge at home



- Costs are too high for vehicles
- o Already own an electric vehicle
- When asked how far they were willing to travel to use a charge point on a regular basis, 34% said 'outside my home', 22% said 'In my street' and 21% said 'Under 5 minute walk.'
- 36% of respondents said they would be happy to charge a vehicle in a remote hub / location. 38% of respondents said they would not be happy to do so.
- Of those that said, 'yes' the main reasons can be summarised as follows:
 - As long as site was secure
 - o Providing site was near to amenities to use whilst charging
- Of those that said 'no' the main reasons for their answer can be summarised as follows:
 - Personal safety concerns using a remote location
 - Concerns about security of vehicle at location
- 77% of respondents said they think a 25% premium is an acceptable charge for a publicly accessible point compared to home costs.
- Overall, over 300 people took part in the engagement via the consultation survey, with 421 people engaged directly in the engagement on the <u>Let's Talk</u> <u>Electric Vehicle</u> engagement tool. 525 people were informed (viewed documents and multiple pages) and 1,184 were aware of the project (visited the site).



1. INTRODUCTION

- 1.1 This report presents the findings of the Let's Talk Electric Vehicle Charging consultation on the future development of electric vehicle charging points across Rhondda Cynon Taf.
- 1.2 Section 2 outlines some brief background to the consultation process.
- 1.3 Section 3 details the methodology.
- 1.4 Section 4 provides the results of the online questionnaire, ideas tool and quick polls.

2. BACKGROUND

- 2.1 In January 2020 the Climate Change Cabinet Steering Group received a report on '<u>Transportation How Do We Reduce Our Carbon Emissions</u>' which provided an update on the situation regarding carbon emissions and transport and also identified the steps that could be taken to reduce such emissions.
- 2.2 Within the report it was identified that transport accounts for 14% of Wales' carbon emissions and in order to make the sector more resilient, efficient and low carbon in a cost-effective way the report discussed many topics such as; an integrated metro, active travel enhancements, electric vehicles and the charging infrastructure, home to school transport, land use planning, technology, car parking strategies, congestions charging or workplace car park charging and taxation. Furthermore, in November 2020, the UK Government announced the end of the sale of new petrol and diesel cars by 2030.
- 2.3 Whilst the use of electric vehicles is increasing year on year we need to assess the future demand for an EV charging infrastructure in RCT. Future projections indicate that approx. 8,000 EV's will be owned by residents in RCT by 2030. Whilst this is a relatively small proportion of the vehicles within RCT, they clearly need to be supported with a suitable charging infrastructure.
- 2.4 We need to determine the best location and type of charging points across the County Borough. As part of the report presented to the Climate Change Cabinet Steering Group in March 2021 'Electric Vehicle Charging Infrastructure: Driving Change' it outlines that In early 2018, there were 145 Ultra Low Emission Vehicles (ULEV) registered in Rhondda Cynon Taf, compared with 3,275 in Wales and 157,304 in the UK. Across the UK, demand is predicted to rise rapidly with one million ULEVs projected by the early 2020s and as many as nine million by 2030. If realised, and if growth in ULEV ownership continues to rise in RCT at a similar rate to the UK, there could be over 900 ULEVs in RCT by the early 2020s and over 8,000 by 2030.



- 2.5 Whilst the use of electric vehicles is increasing year on year we need to assess the future demand for an EV charging infrastructure in RCT. Future projections indicate that approx. 8,000 EV's will be owned by residents in RCT by 2030. Whilst this is a relatively small proportion of the vehicles within RCT, they clearly need to be supported with a suitable charging infrastructure.
- 2.6 As a result of the research above and the Council's development of an EV Charging and Infrastructure Strategy, this consultation was undertaken in order to obtain the views of potential EV users in RCT to help gauge potential take-up now and in the future.

3. METHODOLOGY

Key actions included:

- 3.1 The use of an online consultation tool called "Let's Talk RCT". The site hosted the key consultation documents. Methods of engagement on the site include an online survey, short polls, the ability to map localised comments and a stories box (where users are invited to provide comment and can attach images or documents)
- 3.2 The online tools and information were promoted through all social media channels, print media and the Council's corporate website. A number of emails were sent to a range of stakeholders, including, environmental groups, the Council's Citizen's Panel, Older Persons Forums, Councillors, MPs, MSs, community hubs, Welsh language groups and other local Authorities.
- 3.3 The Council's social media team regularly posted in conjunction with the wider 'Climate Change Strategy' consultation to promote the site and consultation tools available.
- 3.4 Overall, over 300 people took part in the engagement via the consultation survey, with 421 people engaged directly in the engagement on the Let's Talk Electric Vehicle engagement tool. 525 people were informed (viewed documents and multiple pages) and 1,184 were aware of the project (visited the site).



4 Key Findings

- 4.1 The following section outlines the results from the questionnaire, which received 325 responses. A selection of comments are provided and the full list of comments will be provided to Cabinet Member and senior officers to assist with decision making.
- 4.2 Respondents were asked how many cars or vans are currently used by members of their household.

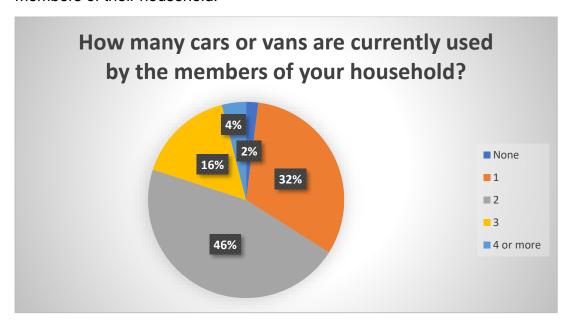


Figure 1 – How many cars or vans are currently used by the members of your household

4.3 The majority of respondents (78%) selected they have either 1 or 2 cars or vans currently.



4.4 Respondents were also asked to identify the type of parking facilities that are currently available within their local residential area.

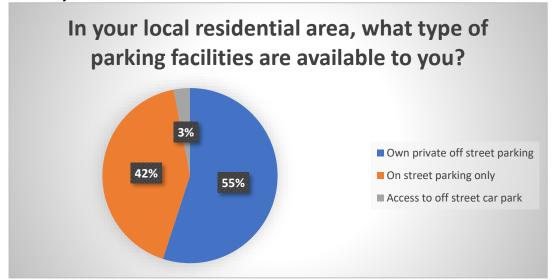


Figure 2 – What type of parking facilities are available to you?

55% of respondents selected that they have access to their own private offstreet parking whilst 43% said they only have access to on street parking.

4.5 Respondents were asked whether they or someone in their household currently own an EV. The majority of respondents (84%) said 'no' with the remaining 16% of participants selecting 'yes'.

Of those who said 'no', they were then asked, 'how likely are you to consider purchasing an Electric Vehicle'?

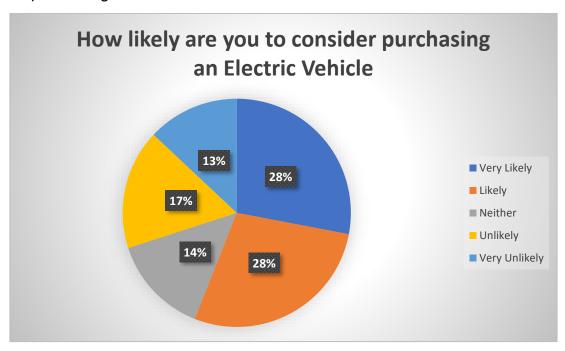


Figure 3 – How likely are you to consider purchasing an EV?



- 4.6 Over 50% of respondents selected either 'Very likely' or 'likely' that they would consider purchasing an Electric Vehicle.
- 4.7 Of those that said they would be 'unlikely' or 'very unlikely' to consider purchasing an EV, they were asked to provide any comments for their answer. The common themes that emerged in these comments were the **financial costs** of purchasing and owning an electric vehicle and the **lack of suitable charging points** near to their homes was also felt to be a barrier.

Some comments included:

"The cost of the vehicle."

"They are expensive and only really allow shortish journeys at present and they take too long to charge."

"I can only park on the road by where I live and its highly unlikely I will ever get a space outside my house. How on earth will it be possible to run a cable from my house over a public pavement to charge a car I could never afford."

"No place to charge it, cannot guarantee parking outside the house."

"Live in a terrace as do most of the valleys residents, how are we meant to charge cars at home?"

4.8 Of those who selected they were 'Very Likely' or 'Likely' to purchase an electric vehicle, they were asked to identify when they intend to purchase.

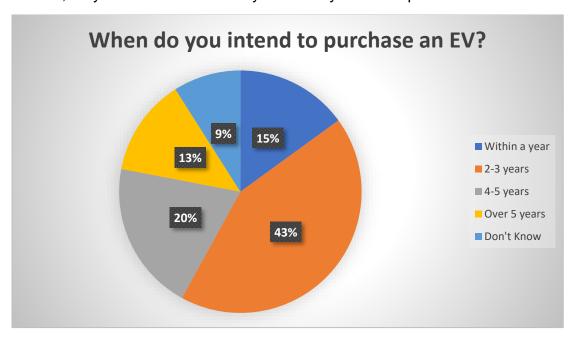


Figure 4 – When do you intend to purchase an EV?

The results show that over half of respondents intend to purchase an electric vehicle within 3 years.

4.9 Respondents who identified they, or someone in their household, currently own an electric vehicle were asked where they currently charge the vehicle.



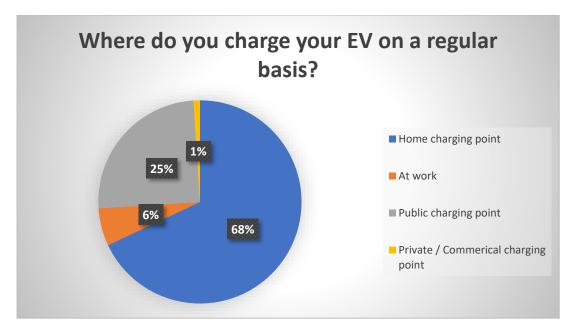


Figure 5 – Where do you charge your EV on a regular basis?

68% of respondents said that they currently use a home charging point to charge their electric vehicle on a regular basis with 25% regularly using a public charging point.

- 4.10 Current owners of electric vehicles were also asked how often they use a charge point in a usual week. 33% of respondents selected 1-2 times a week with the same number (33%) selecting 3-4 times a week.
- 4.11 All respondents were asked to what extent they agreed with the following statement, 'A lack of accessible charging points is often quoted as a barrier to buying an electric vehicle.'

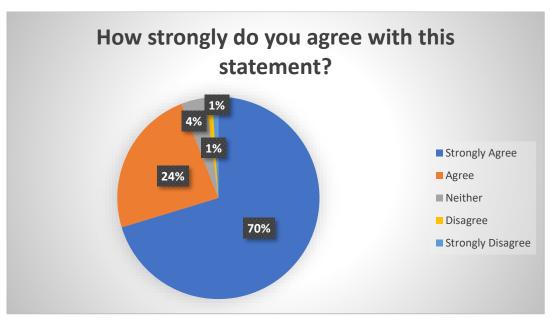


Figure 6- Barrier to buying an EV -Agreement levels



- The majority of respondents selected that they either 'Strongly Agree' (70%) or 'Agree' (24%) with this statement.
- 4.12 Respondents were asked 'Would the installation of a public EV charging point near your residential area increase likelihood of you owning an EV?'. The results show that over half of respondents said either 'Definitely' (38%) or 'Maybe' (22%).

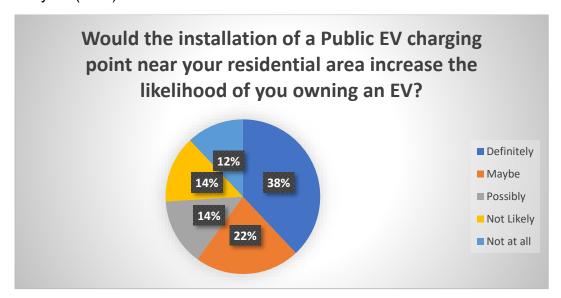


Figure 7 – Publicly accessible charging point increasing likelihood of owning EV.

Respondents were asked to provide comments in relation to their chosen answer.

4.13 Of those that selected 'Definitely' the common themes included respondents indicating that public charging points would help give them confidence in a network readily available for charging and allow them to undertake the journeys required. The convenience of having access to rapid charge points also emerged as a reason. Comments highlighted that home charging can be slower and therefore having access to rapid publicly available charge points would increase the likelihood of purchasing an electric vehicle. Finally, respondents who selected this option commented on the ability to overcome a barrier to not having a suitable place to charge a vehicle at home due to on street parking or terraced houses.

Some Comments include:

Confidence in ability to charge across borough

"Confidence and convenience in ability to easily access EV charge point."

"Currently there are no charging points that I know of locally, therefore that would put me off currently, but if there were convenient charging points locally then of course I would be more inclined to purchase one."



"Without the infrastructure people will not want to adopt EV, people want convenience."

Convenience of a rapid charge. Home charging takes longer

"It allows for more flexibility. I can use my own charging point overnight but if I need a quick charge, a public point is better."

"I currently charge through the 'granny' cable, which takes all night, a public EVCP that was a fast or rapid charger would make charging much more convenient."

"I used to have a plug-in hybrid car and despite having a garage at my terraced property the wiring there wasn't strong enough to support ev charging. This meant running cables to charge on the street which was not particularly practical or safe. A nearby fast charger would have been ideal."

Overcomes barrier of not being able to charge at home

"Without public charging points it is impossible for us to own one as we cannot charge one from our house."

"I can't park outside my home so a local charge point might work."

"People who have no off-road parking need a solution to charge."

"The ability to conveniently and reliably recharge an electric vehicle is essential and at present I do not have this facility at home."

4.14 Of those that selected 'Possibly' or 'Maybe' the main themes emerging in the comments included the requirement for charging points to be easily accessible and in locations that were near to homes and/or work. The cost of charging / owning an electric vehicle also became a theme in the comments.

Location- needs to be accessible and easy to use

"It would depend on how accessible it was, how near my home it was and also how secure it would be."

"Locality of charging point to home/work office would influence the decision to buy an EV. If charging point was accessible daily and within close proximity to my home/work (end of street/office car park) the answer would change to definitely."

"It would need to be readily accessible and reliable before I would commit to buying an EV."

"It would still need to be in a place where I am guaranteed to be able to charge my car when I need to."

Cost - affordable

"It's still the cost to purchase these vehicles as the main barrier."



"I'd be interested to know how a public EV charging point would work and how it would be charged (cost wise) compared to the cost of charging from your home."

"The Price of EV cars are still quite High."

"Depends on location and the cost of the vehicle."

4.15 Of those that selected 'Not likely / Not at all' the comments highlighted a preference to charge at home rather than at a public point. The financial costs involved in purchasing and owning an electric vehicle were also given as a reason. Some respondents who selected this option did so because they already currently own an electric vehicle and/or have access to their own charging point at home and therefore indicated a public charging point would have no implication on their decision to continue using electric vehicles.

Prefer to charge at home

"I need my own charging point at home to guarantee I can charge my vehicle, public points near my home may all be in use and i am left unable to charge. Living in a mid-terrace home as most do in this area means electric cars are not the future."

"I would rather install a charging point at home and use that one."

"I would want a charging point outside my home."

"I would want my own private charger at home."

Cost of cars initially too high

"The cars are too expensive to buy."

"Can't afford a new car. I buy second hand cars....which obviously don't have EV. Plus, I believe this will the case for a high percentage of people in RCT."

"The cars are too expensive, and charging will take longer than filling up with petrol, so I would imagine the charging points will be busy all the time. a massive amount of investment needs to be put in place."

Already own EV / have own charging point

"I have my own driveway so will install a home EV charger."

"As I already own an EV I'm also lucky enough to have a home charger."

"I plan to have my own wall charger."

"I have off street parking so would not need to use a public charge point - others who don't have a driveway would though."



4.16 Respondents were asked to tell us how far they would be willing to travel to use a charge point on a regular basis. 34% of respondents said 'outside my home' and 22% said 'In my street'.

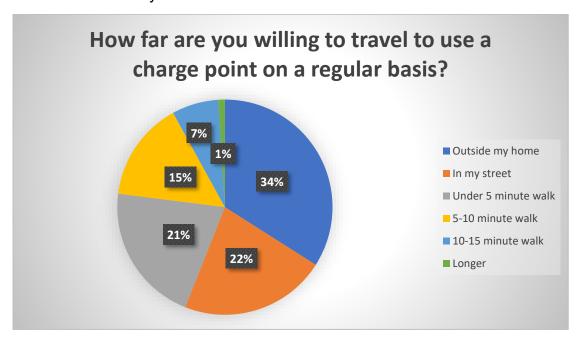


Figure 8 – How far are you willing to travel to use a charge point?

4.17 We also asked respondents whether they would be happy to charge a vehicle at a remote hub / location. The results are largely split with 36% saying 'yes' and 38% saying 'no'.

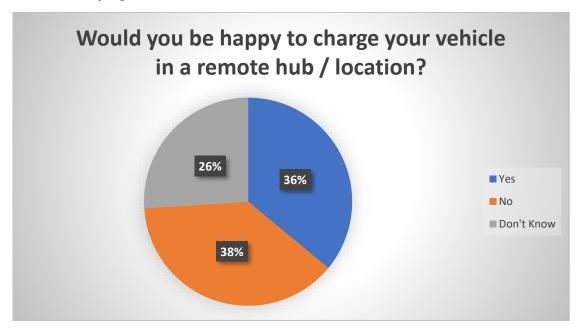


Figure 9 – Would you be happy to charge your vehicle in a remote hub?

4.18 Following this question, respondents were asked to provide further comment as to why they would or would not be happy to charge a vehicle at a remote location.



The following themes emerged in the comments.

Security of location

The personal safety of individuals using the charging points was one of the main themes that emerged. For those that selected 'yes' they would be happy to charge at a remote location, security still remained a high concern and one of the motivating factors for using a publicly accessible charge point.

Some comments included:

"Depending on where it was and if I was comfortable with it I would do it."

"So long as it was adequately secure."

"As long as the site is secure and within a short walking distance to my home."

"If the site was secure and safe, then I would be comfortable leaving my vehicle to charge."

Near to amenities

A second theme that emerged from the comments of those that selected 'yes' showed a preference for the location of chargers to be near to places they may already be travelling to e.g. retail parks and places of work.

Some comments included:

"If there are amenities nearby I can use these while the car charges."

"If it was at my place of work. Otherwise would prefer to charge at home. Reasons are related to convenience and time it would take to charge vehicle."

"If I could charge up the vehicle while in work, this would be useful."

"If en route on a regular journey, or town I shop in."

"If this hub was somewhere near to where I live or was visiting for another purpose such as shopping etc."

Personal safety / Vehicle damage at location

Of those that selected 'No' the main theme that emerged in the comments surrounded the personal safety of users accessing remote charging hubs alongside concerns regarding security of the vehicle whilst at a hub.

Some comments included:

"Possibly an isolated area, so would feel vulnerable when alone."

"Concerns regarding theft, having to wait in the vehicle and personal safety if too remote."

"Safety and inconvenience."

"Risk of being broken into. Also if charging overnight and it was needed getting to the car in the dark to these locations would be an issue."



"Only if the location was secure or had some sort of cctv."

"Car theft, damage to car and no way to get from home to and from that remote location. Consider disabled drivers and their ability to do this."

4.19 Publicly accessible charging points have increased costs compared to the costs to charge an EV at home. For example, the cost at home is around 13p/KWh, 50% more would mean this is 26p/KWh at a public point.

Respondents were asked 'What is the acceptable charge for publicly accessibly point compared to home costs?'. The results show that the majority of respondents (77%) would be prepared to pay a 25% premium to use a publicly accessible point.

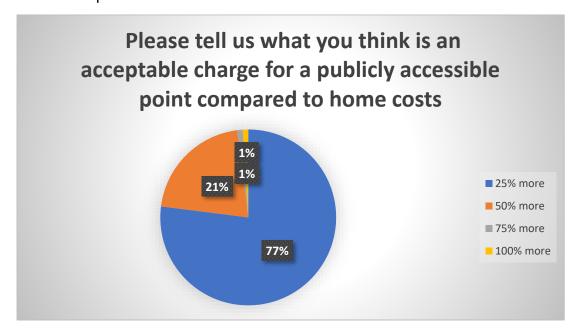
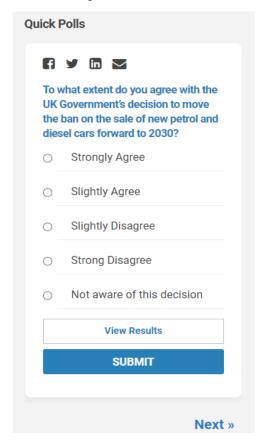


Figure 10 – Acceptable charge for a publicly accessible point



Quick Polls

4.18 2 web polls were set up within the Let's Talk Electric Vehicles project, as shown in figure 11 below;



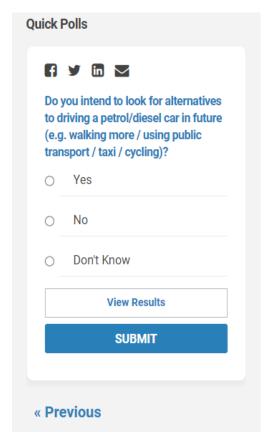


Figure 11 - Quick Polls

4.19 Quick poll 1 asked "To what extent do you agree with the UK Government's decision to move the ban on the sale of new petrol and diesel cars forward to 2030?" 97 people took part in this poll.

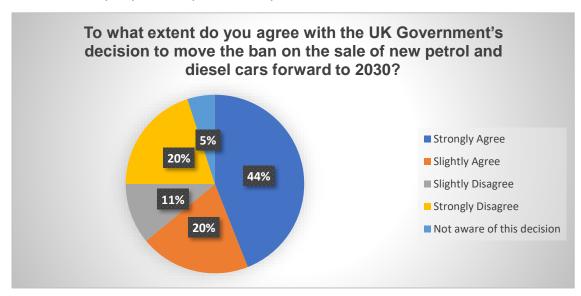




Figure 12 – Agreement with decision to bring forward ban on sale of new petrol /diesel cars.

Over 60% of respondents either strongly agreed or slightly agreed with the decision made by UK Government to bring forward the ban on the sale of new petrol and diesel cars.

4.20 Quick Poll 2 asked "Do you intend to look for alternatives to driving a petrol/diesel car in the future (e.g. walking more / using public transport / taxi / cycling)?" 25 people took part in this poll.

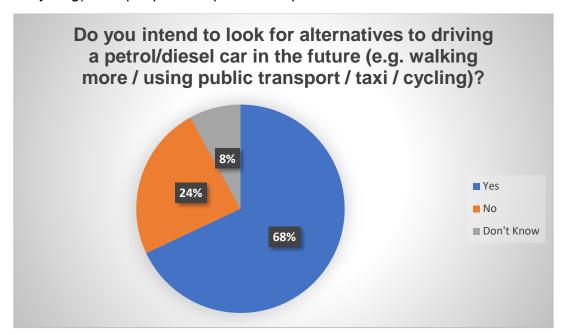


Figure 13 – Intentions to look for alternatives to driving a petrol / diesel car

68% of people said 'yes' they intend to look for alternatives to driving a petrol/diesel car in the future.

Places (Map tool)

4.21 An interactive map was available as part of the Let's Talk site. Users were asked to use the map to navigate around areas in RCT and 'drop pins' in public locations they felt would be suitable for an EV charging point. Users were able to leave comments explaining why they chose that location should they feel necessary.

A total of 222 individual pins were dropped during the course of the consultation. These varied in location across the borough although a high number were concentrated in the Pontypridd / Taf area. As can be seen below, 131 pins were dropped in the area surrounding Pontypridd, Llantrisant, Llanharry and Church Village.



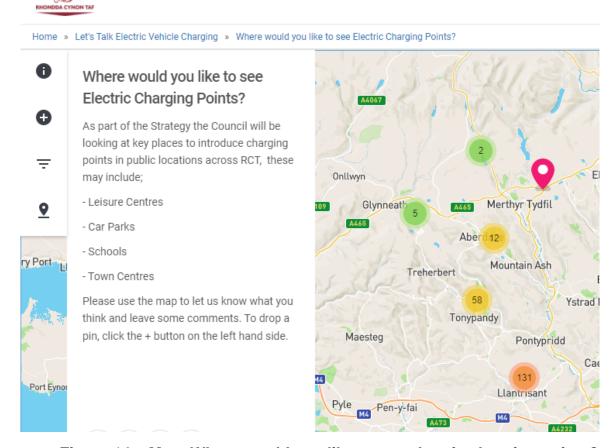


Figure 14 - Map: Where would you like to see electric charging points?

Popular locations selected include retail parks such as Talbot Green and Pontypridd Town Centre with comments indicating charging points here would be utilised whilst shopping / eating out.

Other popular locations were near railway stations and leisure areas used for recreational exercise.

The following maps show locations at a high level for illustrative purposes.

A full list of all locations identified and suggested reasons is attached at Appendix 1.



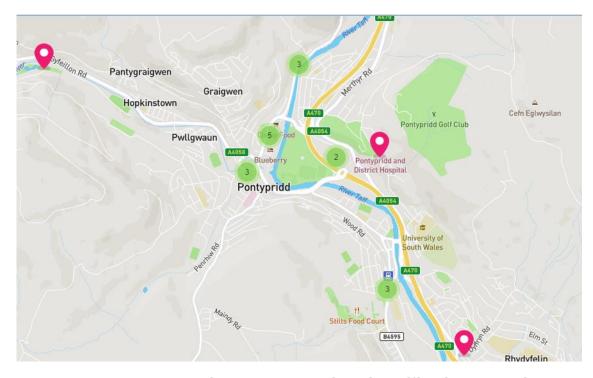


Figure 15 – Locations identified in Pontypridd area



Figure 16 – Locations identified in Llanharan / Llantrisant and Church Village



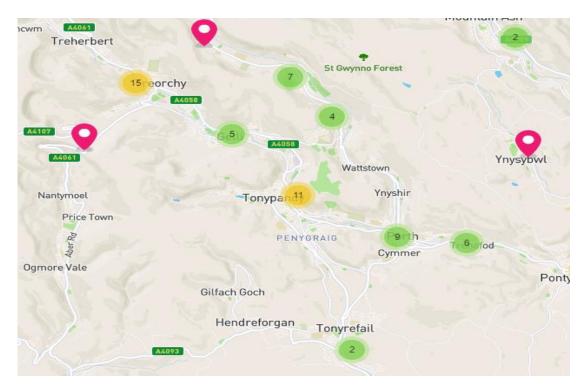


Figure 17 - Locations identified in Rhondda area



Figure 18- Locations identified in Cynon area

4.22 As part of the consultation, important stakeholders were contacted. A response was received from CADW in relation to the potential locations of charging points. The response highlights the requirement that the location of any potential electric vehicle charging stations and their appearance will need to consider any impact on designated historic assets (including Conservation Areas) and their settings, particularly noting the requirements of section 66 of



the Listed Buildings and Conservation Areas Act 1990 along with the guidance given in section 6 of Planning Policy Wales (2021) and TAN 24.

Stories

4.23 Users were able to leave a "story" detailing their experience of owning an EV as part of the consultation online tool. A total of 3 stories were received, the following is an example. The 3 stories are available in Appendix 2.

28 days ago

Allert moderator

I ordered my first fully electric car in December 2019 though a salary sacrifice scheme at work with the intention of using it to commute from Ferndale to my workplace in Bridgend. They have free electric vehicle charging on site as well as being very close to a Tesco that also has free EV charging so I thought it would make sense and save me money. I don't have any dedicated off-road parking at my home, but I can park outside most of the time, but the intention was to charge at work mainly so there would be no need to worry about home charging anyway.

Things changed with Covid in that I have been working from home for more than a year now so I haven't done many miles in the car yet but equally, I can't charge at work either. As an interim measure I have been charging the car up using a slow 3 pin adaptor from the outside plug socket I had fitted last year. I run the cable across the pavement covered by a highly visible, electric cable protective mat to keep things safe. This has worked brilliantly and given the near 200 mile range of the car I have only had to top at a rapid charger a few times when on a really long journey. Ideally I would have liked a proper EV charge point fitted to the front of my house so that I could get faster charging speeds, but grants are only available if you have off road parking unfortunately (could this be looked into by RCT Council?) and the slow charger works for me presently anyway. If we were to get another EV then I would look at getting one fitted to help keep both cars charged.



Whilst I agree that there is a strong role for local councils to play in helping roll out EV charging solutions to encourage EV take-up I believe that that privately funded charging will be the main driver. The main thing you hear is "I can't have an EV because I can't park outside my house" and that is a fair point to some extent, however, you don't currently fill your fossil fuel car at home so why does this have to be the case with an EV? I'd say that it's mainly because of the lack of public charging infrastructure locally. If EVERY Tesco/Asda/Sainsbury etc supermarket had banks of rapid chargers in their store car parks you could combine your shopping visit with charging the car. If every McDonalds/KFC etc had a number of rapid chargers you could do the same when popping out for food. The aim is to be doing something else whilst the car is charging, not hanging around waiting for it to charge.

Obviously councils are not in control of the private sector in terms of rollout of EV chargers so they would need to have a strategy too but given the lack of finance available I believe that chargers should be rolled out strategically in a way that would mean they can be used in the most efficient manner. Eg. There is no point putting 7kw charging points in Park and Ride locations as the chargers will be blocked all day by commuters despite having had their cars filled after a small fraction of the time they are away from their car. 50kw rapid charger hubs should be located in town centres where there are other amenities available for them to use (shopping/coffee shops etc) whist charging, but putting time restrictions to ensure they are not blocked for longer than necessary (with penalties applied to no EV drivers who block the spaces)

I believe that perhaps some kind of focus group where current EV owners are part of the consultations for good site locations would be helpful as as most EV owners in RCT could be considered 'early adopters' they have a keen interest in helping to develop the forward planning of EV infrastructure in the county and tend to have a good deal of experience on how EV charging can and should be done to benefit as many drivers as possible.

Perhaps RCT Council should get in contact with private EV charging firms (Instavolt etc) to help them develop their network in the area, they install chargers to MAKE MONEY, so given assistance from the council I'm sure they would be more than willing start installing here, especially given the high proportion of housing with no off road parking meaning that their services would be required even more.

I believe that RCT is currently the ONLY county in the whole of the UK that doesn't have a single Rapid (50+kw) charger within it's boundary. I realise that there is one opening at Lidl in Porth shortly, and some (as yet unknown) EV charging going into Porth train station car park, but it's still a pretty poor record and this really needs to have some focus put on it now.

As stated earlier, perhaps some kind of focus group that includes current/prospective EV owners would be helpful to help assist RCT with their long



term EV strategy? I'm sure a number of us would be happy to assist.

Do you agree? 🐽 0 📭 0







Figure 19 – Story 1



