

Cross-Pavement EV Charging: Simple Solution, Complex Delivery



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Consultant working on behalf of Coventry City Council

MSc | MTICE | FCIHT | FIHE | PWI | PMI

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Who am I

- Shamala Evans-Gadgil: Part time Researcher (Ph.D.), with a Civil Engineering and Contract Management background
 - Working as a consultant to Coventry City Council in a Senior Programme/Project Manager capacity on Innovation Projects in Transport and Innovation Division.
 - Project Lead for:
 - ◊ Electric Vehicles Charging Infrastructure Strategy
 - ◊ All Electric Bus City
 - ◊ Renewable Energy and Battery storage
 - Chair of TTF Electric Vehicle Charging Infrastructure Working Group
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Summary of Strategy

- 10 year Strategy, to be refreshed annually
- Current EV chargepoint supply is 8.5 years ahead of demand
- 67.6% of dwellings without driveways in Coventry now within a 4-minute walk of a lower powered chargepoint
- Strategy is to formalise Council's plan for future installations, including pilot schemes for gully charging and residential charging hubs

Current status of electric vehicle adoption

	% of cars and vans that are electric	% of cars and vans that are plug-in hybrid	Total %
Coventry	2.59%	1.83%	4.42 %
WMCA	2.48%	1.34%	3.82%
UK	2.82%	1.51%	4.33%

Local Authority	Total public charging devices	Total public rapid charging devices	Charging devices per 100,000 population
Coventry	2,084	79	586
Solihull	343	65	158
Birmingham	583	188	50
UK	64,632	12,474	96

Parking Restrictions

- There is currently no restriction for vehicles parking in on-street bays with chargepoints
 - The Strategy contains a policy on when the TRO should be changed
 - To start with, restrictions will be added for one parking bay at each location across the city with chargepoints installed (all locations have a minimum of 3 bays)
 - Sensors on parking bays identify if a vehicle is parked there. This can be reviewed by the chargepoint operator in conjunction with their back office, to see if someone is parked but not charging. This data can be monitored to identify if a chargepoint is consistently being blocked
 - If we receive 5+ contacts from residents about a chargepoint being inaccessible or contacts supported by Councillors, these sites will be added onto the list for review
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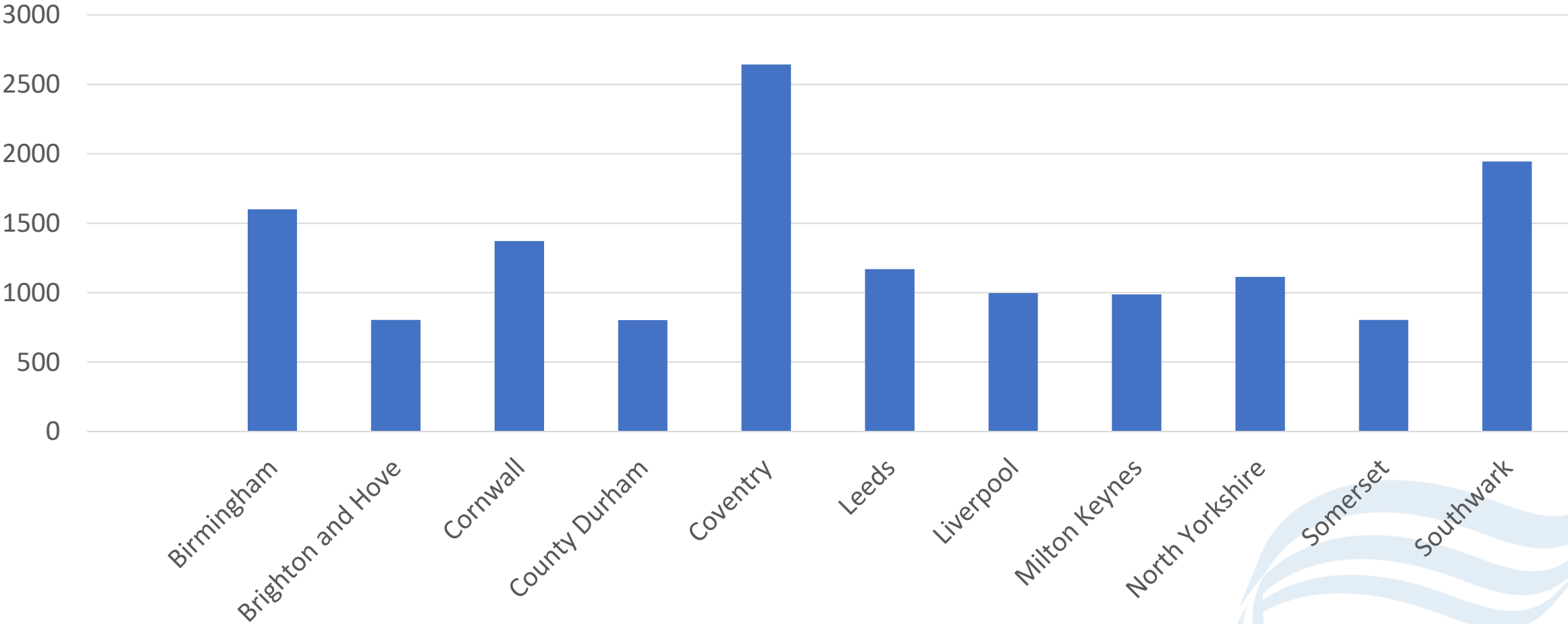
Coventry's EVCI Network and Growing EV Uptake

- Total public EV chargers to date: 2,640+, including all publicly available chargers in Coventry. CCC operational on-street/kerbside network: 2,324 sockets.
- At the end of March 2026 (2026 Q1), Coventry had 3,832 battery electric cars and 3,485 plug-in hybrid cars, giving a total of 7,344 plug-in cars including 27 range-extended electric cars.
- The number of plug-in cars in Coventry increased by 32.5% in 12 months, from 5,542 in March 2025 to 7,344 in March 2026.



Public EV Chargers by Local Authority: Outside London, July 2026

Local authorities with over 800 public EV chargers



Collaboration is the Key!

Our Partners

Chargepoint operators include

- Connected Kerb and Char.gy for residential chargepoints
- ESB for rapid chargepoints

- EON for multi storey car parks

Funding to date has been provided by:

- The Office for Zero Emission Vehicles
- Chargepoint operator investment
- CCC direct investment

CCC will work with E.ON as our Strategic Energy Partner on future installations, where applicable.

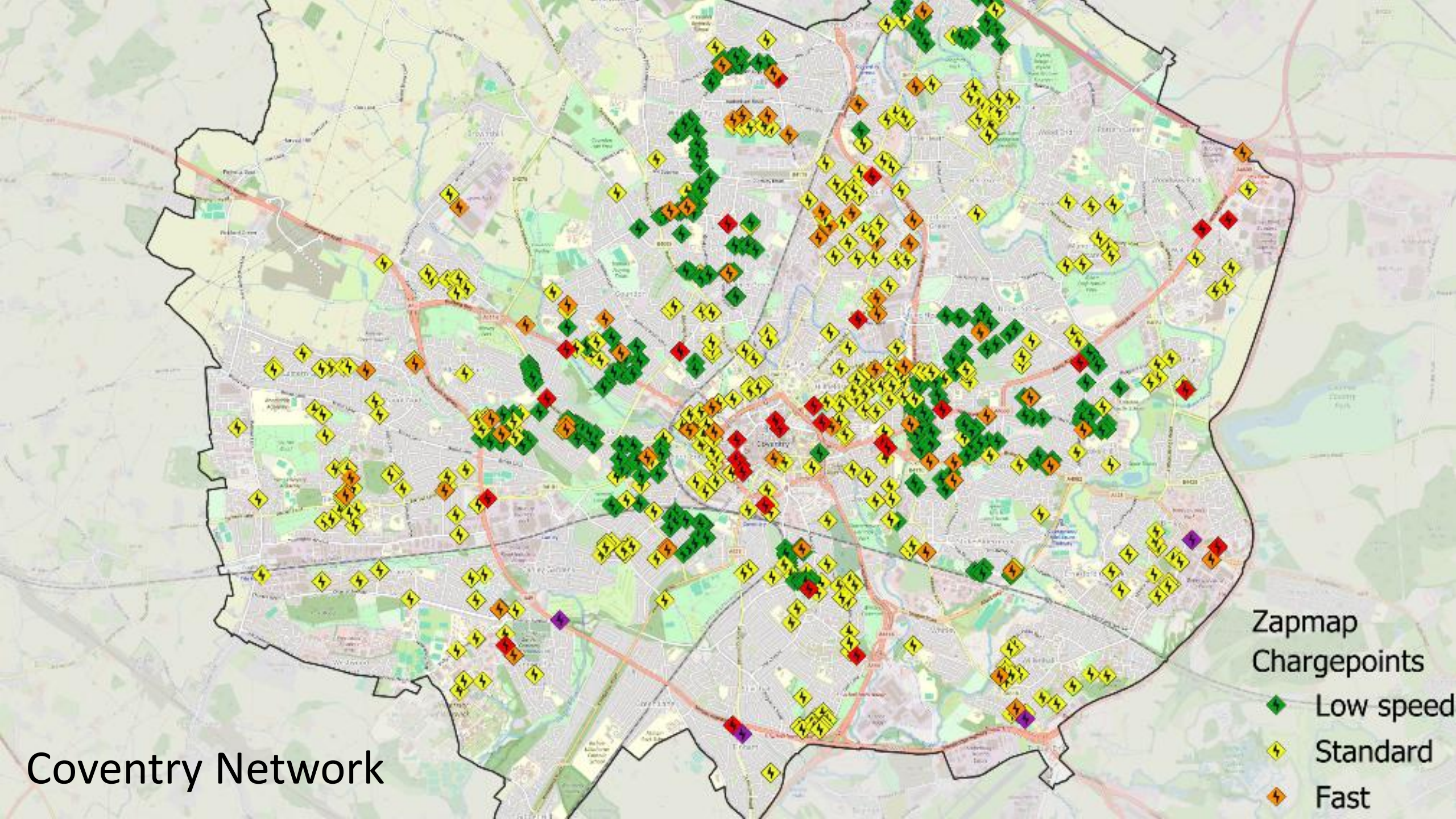
Connected____Kerb



Office for
Zero Emission
Vehicles



Coventry Network



Other projects

- Total EV charging sockets to-date – 2578 (includes all public chargers in the city). CCC led chargers - 1505 (2324 sockets) and private led - 254
- LEVI (main fund) = 500 sockets
- Surface car parks, including rapids and ultra-rapids = 81 sockets
- Undertake a pilot trialling pavement 'gully channels' at 7 properties



Cross Pavement Gully Channel Trial Scheme

Objective: The trial scheme is designed to evaluate the effectiveness and feasibility of installing cross pavement gully channels as a solution for electric vehicle (EV) charging infrastructure, specifically for properties that lack off-street parking. This innovative approach seeks to provide convenient access to EV charging while minimising disruptions to pavements and road infrastructure.

The trial will run for a duration of one year, with comprehensive assessments and participant feedback collected at multiple stages to inform future policy decisions and potential citywide implementation.



Cross Pavement Gully Channel Trial Scheme

Gully Channel Installation:

- Gully channels allow electric cables to run safely across pavements, enabling residents to charge their vehicles without creating trip hazards.
- Each provider will install the gully channels at four/five designated locations, with the installations covered by a 10-year warranty from the service provider.



Survey and Feedback Mechanism:

Surveys have been carried out at three key intervals during this one-year trial period: three months, six months, and nine months after installation. This phased approach allows for ongoing adjustments and a better understanding of the long-term impact and user experience.

Key questions posed to participants included:

1. Were participants able to successfully use the gully channel to charge their vehicles?
2. Did they face challenges in securing parking space in front of their property when needing a charge?
3. Did parking constraints force them to use public charging stations?
4. What reactions did they observe from other residents on their street?
5. Were they able to collaborate with neighbours to move vehicles when needed to access their charging point?
6. Did they use the Kerbo Charge app, and were they approached by others through the app for shared charging? Was the app effective in managing charging coordination?
7. How easy or difficult did they find the gully channel to use?

Technical Assessment by Highways Department:

Parallel to Participants survey, the City Council Highways Department are conducting a thorough technical evaluation at multiple stages to assess the impact of the gully channels on the pavement and surrounding infrastructure. This assessment includes:

1. Pavement Condition: Reviewing whether the installation has had any negative effects on the pavement, aside from natural wear and tear.
 2. Operational Review: Consulting with other local authorities that have implemented similar solutions to compare outcomes and identify best practices.
 3. Service Viability: Determining if the installation could be offered as a permanent solution to Coventry residents.
 4. Policy Development: If the trial is successful, the department will propose policies to extend the service citywide, subject to Council approval
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Trial Outcome and Future Considerations:

The Cabinet Member and the Ward Councillors will be informed of the results of this trial and the findings from both the participant surveys and the Highways Department's technical assessments will help determine whether the gully channel system should be scaled citywide (subject to all necessary approvals).

If the solution proves viable, the City Council will consider developing policies (subject to cabinet approval) for broader implementation, providing a much-needed solution for EV charging in urban areas without off-street parking.

The trial aims to create an equitable charging infrastructure, allowing residents across Coventry to access convenient and reliable EV charging.



Policy Considerations:

- Who will install the channels
 - Application process
 - Earthing and simultaneous contact
 - In-house maintenance or managed service (SLA)
 - Under which license
 - License fees
 - Survey considerations
 - Liabilities and accountability
 - Planning
 - Sale of property
 - Full EV charging as a service to properties with on-street parking
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Charge Gully







Kerbo Charge



**ACO EV Power
Channel**

Cross Pavement Gully Channel – Trial Scheme

Thank You
Any Questions?

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