Rochford District Electric Vehicle ChargePoint Strategy 2024-30

December 2024

Executive Summary

Transport emissions represent the second largest source (after domestic) of the district's carbon footprint at 37% or 105,700tCO2e per annum[1]. The main approach to reducing those emissions, in light of the Climate Emergency declared by RDC in June 2023, is through the publics take up of electric vehicles and supporting electric vehicle charging infrastructure as well as a modal shift to public transport and active travel. There are currently 40 EV charge points in the Rochford District[2] (Dec 2024) of which 8 have been installed by the council in public/private partnership models.

By the end of 2026 there will be at least a further 36 charge points stations, funded by ECC through the Local Electric Vehicle Infrastructure Fund (LEVI) Phase 1 (1-2 sockets per charge point) bringing the total number of publicly accessible changepoints to at least 76. This is on track with the government modelling of requirements for Rochford District in the short term (up to 2025 see page 8 of this paper) but will need to quadruple by 2030 to around 220 charge points. The focus of the strategy will be to support residents with limited access to off-street parking and in areas where reliance on car travel is high.

The council will keep a “watching brief” on the “home charge sharing” model in which residents rent out the use of their chargers to the local community. At the end of June 2024, the UK had 930,000 chargers according to ChargeUK, a lobby group, but the majority of these have been installed in homes and business premises, with only about 65,000 public chargers available[3]. Companies such as “Co-Charger", “JustCharge” and “Zap Map” offer digital platforms for residents to take advantage of more competitive local charging infrastructure as well as mapping demand.

[1] 2018/19 baseline figures

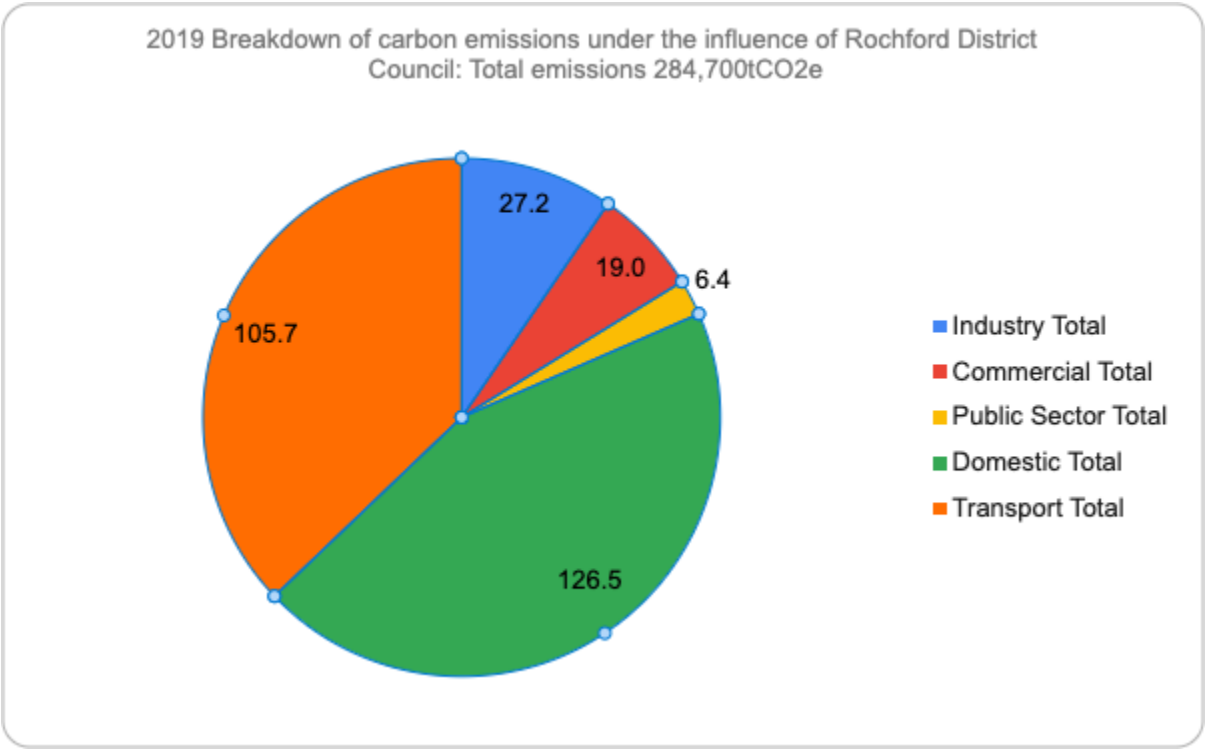
[2] https://www.zap-map.com/charge-points/rochford

[3] https://www.theguardian.com/business/article/2024/jul/15/electric-vehicle-ev-chargers-uk-installations#:~:text=There%20were%20930%2C000%20UK%20chargers,about%2065%2C000%20public%20chargers%20available.

1.0 Context & Targets

1.1 A net zero emissions target for 2050 is now UK law and the government recently announced an ambition to cut carbon emissions by 78% compared to 1990 levels by 2035. Net Zero means balancing out any greenhouse gas emissions produced by industry, transport or other sources by removing an equivalent amount from the atmosphere. The council has responded to this by setting a net zero carbon emissions strategy for its own and managed operations by 2030 and district wide by 2040.

1.2 In 2018/19, 37% of carbon emissions, 105,700tCO2e in the district were from transport. Reducing carbon emissions arising from use of petrol and diesel vehicles will therefore have positive local effects as well as contributing to UK and global targets. Supporting the use of electric vehicles (EV) within Rochford will help to reduce carbon emissions from vehicle use within the borough. It will also have the benefit of improving local air quality, particularly along the main road corridors and town centres.



1.3 EV vehicles have no tail pipe emissions and the current government aims to decarbonise the electricity grid by 2030[4]. In 2023, renewables made up 43% of the UK's electricity supply, with wind power contributing 29.4%, biomass 5%, solar 4.9%, and hydropower 1.8%. This was the lowest share of fossil fuels in the UK's electricity supply ever, at 33%. The UK's electricity generation had the lowest carbon intensity ever, averaging 162 grams of carbon dioxide per kilowatt hour (gCO2/kWh)[5]

1.4 Electric cars are much cleaner than internal combustion engine cars over their lifetime.[3] A typical electric car today produces just half of the greenhouse gas emissions of an average European passenger car. Furthermore, an electric car using average European electricity is almost 30% cleaner over its life cycle compared to even the most efficient internal combustion engine vehicle on the market today

1.5 Battery manufacturing life-cycle emissions debt is quickly paid off. An electric vehicle's higher emissions during the manufacturing stage are paid off after only 2 years compared to driving an average conventional vehicle, a time frame that drops to about one and a half years if the car is charged using renewable energy.

2.0 Strategic Principles

2.1 RDC, with respect to its EV charge point strategy, are at the start of this journey and our Vision is aligned with Essex County Councils (ECC) to deliver "the Right Charger in the Right Place" by applying the following strategic objectives:

- To deliver an equitable electric vehicle charging network that promotes social justice through inclusive design, fair pricing and is accessible to all residents.
- To deliver a healthy environment for all by helping decarbonise the transport system, reducing emissions from transport and improving air quality.
- To guide and promote a resilient and safe charging network with infrastructure that is reliable, accessible, safe, compatible, easy to use and represents good value for money at installation and during its life.
- To integrate EVs with sustainable transport and future mobility solutions to support a reduction in overall car use.
- Better connecting residents, organisations, and visitors throughout Essex, where car travel is necessary, to support the uptake of electric vehicles.

[4] https://windeurope.org/newsroom/news/new-uk-government-plans-big-push-on-wind/#:~:text=The%20new%20UK%20Government%20is,from%2015%20to%2060%20GW.
[5] https://www.nationalgrid.com/stories/energy-explained/how-much-uks-energy-renewable

- To create better places using inclusively designed infrastructure that is sensitively placed in the right locations, complements our public spaces, and minimises the impact on communities.

2.2 The strategy focuses on how we can deliver EV charging infrastructure in the district and what we can enable others to deliver up to 2030. These measures will help pave the way for our longer-term ambitions for charging in the county.

2.3 We will look to deliver and help enable the following through engagement with residents and organisations:

- ECC have supplied a long list of Phase 1 potential residential locations for charge points through the LEVI fund.
- Encouraging more businesses in the district to invest in (or allow private investment in) EV charging like the Cherry Tree Pub.

EV Charge Points at The Cherry Tree, Stambridge Road, Rochford

- Cross pavement channels: potentially developing a policy for allowing on the bits of public footway that the council own and engaging with ECC to push for a county-wide policy.
- On-street charge points for residential users where car travel is necessary.
- Charge points at key destinations that do not encourage increased car use (ie no new carparks that are dedicated solely to EV cars)

- Integration of EV charging with sustainable transport, shared and future mobility options.
- Electrification of our own council fleet to lead by example.
- A joined-up approach to wider network and cross boundary integration with neighbouring authorities, Transport East and National Highways.
- Policy, guidance and standards to make sure others are delivering the right infrastructure
- Keep a watching brief on the growth of the “home charging sharing mode” to determine need for EV charge point infrastructure in locations that lack off street parking.

3.0 Policy Framework

3.1 At present, RDC does not have an adopted policy specifically relating to EV charge point as the presented adopted Core Strategy (Local Plan) dates from 2011.

3.2 We would refer to the Essex Design Guide guidance on EVCPs here: https://www.essexdesignguide.co.uk/climate-change/electric-vehicles/. Also the Essex Planning Officers’ Association (EPOA) Parking Standards – we are looking to adopt the latest version of these in January 2025 Planning Policy Committee: https://www.essexdesignguide.co.uk/design-details/2024-essex-parking-guidance/

3.3 Building Regulations: Permitted Development Rights allow, in most case (some exception apply due to highway safety), to have EV charging point installed without requiring planning permission

3.4 Building Regulations require EV charging points to be secured for new residential buildings, mixed use and non-residential buildings, dwellings resulting from a change of use, and other building projects including major renovations. The Building Regulations 2010 Infrastructure for the Charging of Electric Vehicles Approved Document S sets out the regulations that must be met.

3.5 The Council does not act as ‘Approved Inspectors’ (proposed to become Registered Building Control Approvers under a current Government consultation) for all development projects. But for the development projects where the Councils are acting as the Approved Inspectors, EV charging points will be installed in line with the Approved Document

3.6 In regard to using Community Infrastructure Levy (CIL) funding for EV related infrastructure this is something that could be considered by the managing committee once enough funding has been collected. The Council is currently in the process of setting up a governance arrangement and establishing a committee which will include both officers and members. Once this has been established requests for CIL fees can be put forward for the committee to consider provided it meets the requirements as set out within the CIL Regulations. It is likely that the Council will not have enough in the 'CIL Pot' for about 5 years and it will not fit in with the time scales of this report.

3.7 Moving forward it is proposed that (within the timeframes of planning guidance being updated) supplementary planning guidance is produced to support the update of the Rochford Local Plan, that aligns with The Essex Design Guide[6] :

- For housing developments with garages and/or dedicated off-street parking, each new dwelling should be fitted with a standard (3-7kW) charge point.
- For housing developments with no off-street parking, 10% of the unallocated parking bays should have an active (i.e., wired and ready to use) charge point. A further 10% should have the necessary underlying infrastructure (i.e., cabling and ducting) to enable quick, simple installation later when there is sufficient demand.

4.0 Current Market and Growth Forecasts

4.1 The EV market is rapidly evolving, and our Phase 1 Strategy intentionally focuses on what can be done in the next 5-6 years (up to 2030) to enable publicly accessible EV charge points in locations where:

- Alternative and more sustainable modes of travel are limited, and car travel is necessary
- There is little opportunity for private off-street charging.
- There are opportunities to integrate with sustainable travel.
- It is commercially unattractive to the private sector

[6] https://www.essexdesignguide.co.uk/design-details/layout-details/electric-vehicles/#:~:text=For%20housing%20developments%20with%20garages,and%20ready%20to%20use)%20chargepoint.

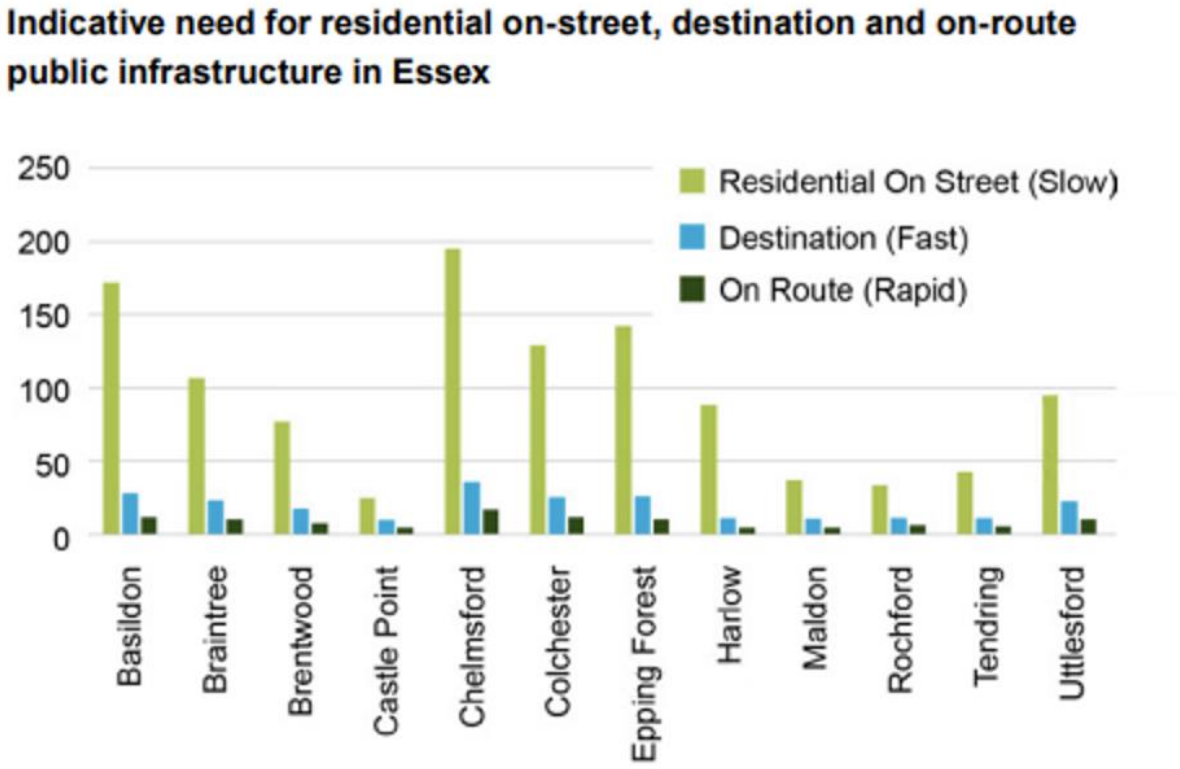


Figure 1 Indicative need for residential on-street, destination, and on-route public EV infrastructure by 2025[6]

4.2 When ECC's EV strategy was produced in mid 2024 there were around 300 chargers (600 charge points cross the county). The strategy predicts 1,500 will be required by end of 2025 (chart above) rising to 6,000 by 2030 (4x increase). For Rochford District by the end of 2025 approximately 40 residential (slow), 10 destination (fast) and 5 on route (rapid) chargers are indicatively needed. The residential chargepoints from the ECC LEVI fund will start installing (following consultation and site assessment) in 2025. The focus of Phase 1 will be to support residents with limited access to off-street parking, and where reliance on car travel is high.

4.3 The list of ECC LEVI Phase 1 charge points is currently a long list and will be refined in full collaboration and consultation with the council.

5.0 Curent EV Charge Point Infrastructure Provision

5.1 RDC currently has 40 public EV changepoints of which eight were installed by the council. RDC EV charge points are at three locations – all in destination location i.e. carparks. Utilisation over 12 months of operation is low with an average rate of 1.7%. The busiest charge point with respect to sessions is Market Car Park, Rayleigh (663 sessions over 12months) in Rayleigh with 1-2 cars charging per day. This suggests that current demand in the district is low for “destination” EV changepoints. It is likely that residents are charging at home and benefit from a cheaper “domestic” tariff.

Charge Points

Com-ID	DisplayID	Site	Sessions	kWh	Utilization
SEC50050		Market Car Park	653	15,894.06	2.23%
SEC50024	SEC50024	Back Lane Car Park	629	14,266.51	1.95%
SEC10697		Websters Way Car Park	193	2,381.10	1.59%
SEC10696		Websters Way Car Park	171	1,490.79	1.04%
SEC10698		The Approach	103	1,832.87	5.56%
SEC50096	Power diverted to Breast Screening Clinic	Southend Road	102	2,488.02	0.40%
SEC10688		Market Car Park	59	609.51	1.24%
SEC10704		Back Lane Car Park	31	401.12	0.25%
SEC106991		The Approach	16	268.89	0.32%

Location	Postcode	Devices	Charge Cost	Installed by Council	Provider
Back Lane Car Park Locks Hill Rochford	SS4 1AY	1 fast (11kW) devices – 2 connectors	PoGo charge	Y	PoGo
		1 rapid (>50kW) devices - 3 connectors	PoGo charge	Y	
The Cherry Tree Pub Stambridge Road Rochford	SS4 2AF	2 fast (11kW) devices – 2 connectors	Free to Use	N	
Toomey Reanult Southend Toomey Automotive Retail Park Rochford	SS4 1GP	2 slow devices (7.5kW) - 2 connectors	Consult Renault Dealership App	N	
		1 fast device (11kW) 1 connectors		N	
The Freight House Bradley Way Rochford	SS4 1BU	1 rapid devices (22kW) – 3 connectors	79p/kWh	N	Pogo
Golden Cross Parade Ashingdon Road Rochford	SS4 1UB	1 ultra rapid device (up to 150kW) - 2 connectors	85p/kWh	N	InstaVolt
Rochford Hospital Union Lane Rochford	SS4 1RB	2 slow devices (7.5kW) - 4 connectors	39p/kWh	N	Blink
Costa Rochford Airport Costa Coffee Driv	SS4 1PN	**1** ultra rapid device - (up to 150kW) **2** connectors	85p/kWh	N	InstaVolt

Thru, Cherry Orchard Way Rochford					
RAW Greene King Victory Inn 3 Victory Inn Rochford	SS4 3EU	3 rapid device - (22kW) 6 connectors	One off connection fee of £1, then 55p/kWh	N	Raw Charging
Websters Way Car Park Rayleigh	SS6 9JQ	2 rapid devices (22kW) – 4 connectors	?	Y	PoGo
Market Car Park Rayleigh	SS6 8EB	1 fast device (11kW) 2 connectors I rapid device (22kW) 3 connectors	?	Y	PoGo
Rayleigh SF Connect	SS6 9DW	2 Ultra rapid devices (up to 150kW) – 4 connectors	85p/kWh	N	BP Pulse

5.2 The locations of council installed, and commercial EV charge points are shown below, as well as residential charge points shown by the “house icons”. These

are residential properties that have EV charge points installed and Zap Map subscribers can book, charge and pay residents through the app.

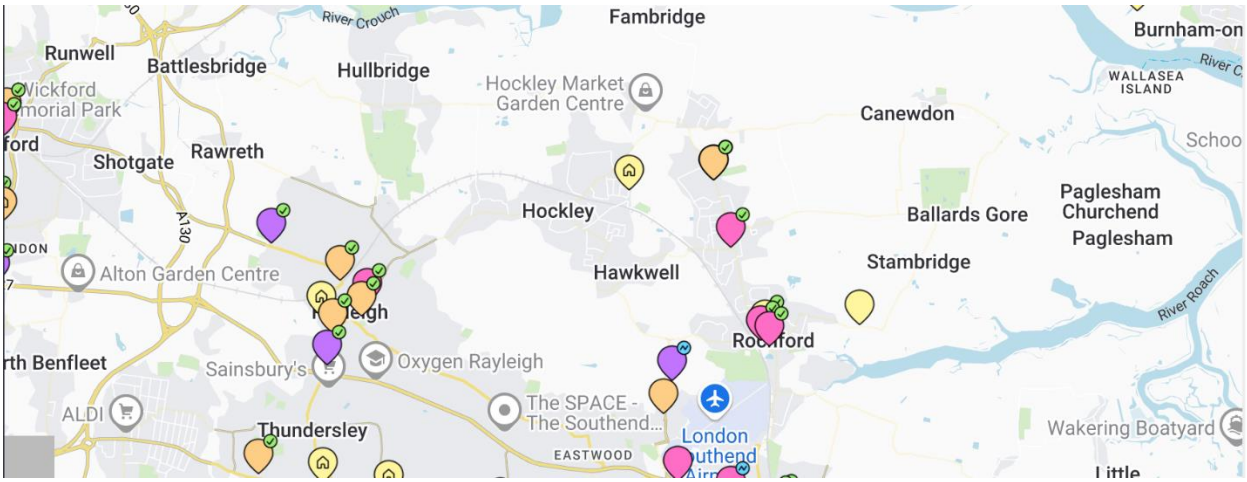


Figure 3 Zap Map for Rochford District Chargers; pink are fuel stations that have rapid & ultra rapid chargers there is a BP and Shell just outside Rayleigh. Th house icon represents resident who offer the use or their own chargers.

5.3 This innovation to allow residents with EC charge point infrastructure enables residents to share the use of their home chargers, increasing local charge point availability as well as providing an income to residents. The Council communications team will work to support take up and raise the profile of this type of charging option.

5.4 Public EV Charge point Infrastructure Essex wide – 2024

District	EV charge points

Harlow	130
Epping	88
Tendring	61
Chelmsford	54
Brentwood	53
Basildon,	52
Colchester	51
Southend on Sea	46
Rochford	**40**
Thurrock	36
Maldon	36
Braintree	35
Uttlesford	22
Castle Point	3
Total	**702**

6.0 Funding for New EV ChargePoint Infrastructure

6.1 RDC will continue to monitor current utilisation of its four sites with changepoints and be looking to introduce new changepoints based on the strategic principles outlined above and current utilisation.

6.2 We have applied to ECC to take advantage of The Local Electric Vehicle Infrastructure (LEVI) funding which is fundamental to the delivery of these charging points.

Figure 4: ECC LEVI Phase 1 funded Charge Points

6.3. ECC are supporting our EV ChargePoint ambitions with **Phase 1 LEVI support expected to** include 36 on-street sockets (could be some dual-socket chargers, so number of units uncertain) across Rochford district, plus (depending on agreements with councils) some more in car parks, with more to follow in subsequent phases.**, installation is expected to start in 2025 and completed by the end of 2026.**

6.4 The Council will work with ECC to ensure there is adequate EVCP provision in appropriate locations which supports residents who do not have access to off-street parking and wider sustainable travel objectives.

6.5 There are two main grant schemes available to us, the On-Street Residential Charging Grant, and the Workplace Charging Grant. These cover 75% and 50% of the installation costs of charging points. There is no provision in the grant for future maintenance.

6.6 We are cautious in investing our limited capital funds in an innovative and evolving technology. We lack the resources internally to stay on the cutting edge of developments and see the market as the main holders of this knowledge and expertise. Therefore, our preferred option for **delivery and ongoing**

management, operation and maintenance is the use of third party supplier. Other than drawing down on Government Grants for electric vehicle charging, we do not intend to use any other Council funds to deliver this scheme.

6.7 **Moving forward.**

- The list of ECC LEVI Phase 1 charge points is currently a long list and will be refined and shared with the council in full .
- Continue to work with market-based partner to work with us to provide the charging point network.
- Develop a 5-year rolling delivery programme for charging points across the district. This delivery programme will aim to achieve the installation of 220 charging points across the borough by 2030 in line with the ECC study on projected EV infrastructure requirements. The focus of the strategy will be to support residents with limited access to off-street parking and in areas where reliance on car travel is high.