KCC approach to Electric Vehicle Charging

To: **Maidstone Joint Transportation Board – October 2023**

Main Portfolio Area: **Growth, Environment & Transport**

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Classification: **For Information**

Electoral Division: **County Wide**

Summary: **This report provides an update on Electric Vehicle (EV) Charging Infrastructure across Kent**

1. Introduction

1.1. This report gives a broad overview of the EV charging network in Kent and will look at Kent County Council's (KCC) role specifically in ensuring our residents and businesses are able to switch to electric vehicles.

1.2. It looks at the current numbers of EV chargers in Kent and outlines any developments that have occurred since KCC's allocation of local Electric Vehicle Infrastructure (LEVI) funding.

2. Electric Vehicles Charging Infrastructure

2.1. Electric Vehicle (EV) sales are growing in the UK and the demand for charging infrastructure is rising even in light of recent announcements to push back the date from which petrol and diesel vehicles can be sold to 2035. Demand will still be driven by the Government's Zero Emission Vehicle mandate requiring 80% of vehicles sold in 2030 to be EV. This is not traditional refuelling as we know it. The speed, and therefore price, of charging varies from the slowest 3kwh up to a potential 350kwh. This could be the difference between charging in 10 hours or charging in 10 minutes.

2.2. Industry data suggests the vast numbers of EV owners choose to charge at home if they have access to a home charger. It is convenient and provides the lowest cost option. VAT on electricity is paid at 5% at home but 20% on the public network - arguably penalising those who do not have access to off street parking.

2.3. In order to help the transition to electrification, with all the carbon and air quality benefits this would bring, KCC have developed an EV infrastructure programme to install EV charging points across the county.

2.4. In March 2022 the Government Published their Electric Vehicle Infrastructure Strategy and released some Pilot funding to go alongside this.

2.5. The Government has now launched the Local Electric Vehicle Infrastructure (LEVI) Fund for Highway Authorities to apply for in their region. This is primarily focused on providing resident charging to those without off street parking. The funding is to deliver against a Regional EV strategy, in collaboration with District/Borough Authorities.

2.6. KCC's LEVI funding allocation is set at £12,081.000.

2.7. KCC officers are in the process of developing an Outline Business Case setting out the available options. Officers continue to liaise with all District/Borough partners to determine how best to deliver against the targets.

2.8. To provide high level targets for Local Authorities to work towards, the Government have commissioned CENEX to produce the NEVIS tool. It forecasts charger requirements for each Local Authority Area to meet the 2030 decarbonisation goals.

2.9. However, it should be noted that the majority of chargers across the different forecast scenarios are slower (7kw) and this is not aligning with the private sector led investment in this space who are largely delivering ultra rapid charging (100kw-350kw). The forecast data is reviewed regularly and updated against the public EV charge point network in Kent. Officers are in discussion with the LEVI support body to understand if forecast data is likely to change to reflect the recent announcement relaxing the government's 2030 target.

Date	Total Public sockets	Required sockets	% of target
2022	67	154	43.51%
2023	76	254	29.92%
2024		381	0.00%
2025		548	0.00%
2026		714	0.00%
2027		899	0.00%
2028		1086	0.00%
2029		1272	0.00%
2030		1447	0.00%

Figure 1 – Data from July 2023. Taken from the NEVIS tool kit. Shows that by 2030 it is expected Maidstone District may need 1,447 chargers to meet forecast demand.

2.10. In July 2023 the following public chargers were available to use. (DfT Electric Vehicle Device statistics) Source: https://maps.dft.gov.uk/ev-charging-map/index.html

District	Total public charging devices	Total public **rapid** charging devices	Total public **fast** charging devices	Charging devices per 100,000 population
Ashford	63	10	53	47
Canterbury	63	12	51	40
Dartford	86	40	46	73
Dover	98	25	73	84
F&H	132	24	108	120
Gravesham	61	6	55	57
Maidstone	76	32	44	43
Sevenoaks	34	15	19	28
Swale	68	18	50	45
Thanet	35	10	25	25
T&M	68	17	51	51
T Wells	53	11	42	46
Total	837	220	617	

2.11. It should be noted that simply installing chargers does not necessarily mean they are being well used, maintained or are in strategically important locations and at the "right" speed. All these factors must work together to create a coherent and useful charging network.

2.12. KCC's EV charge point programme consist of the below projects:

The Kent EV Network	A multi-partner framework is installing 7kw chargers in 150 car park locations around Kent under a concession model. 200 EVCP's have been installed to date with a further 200 in development. All District/Borough Authority Councils are able to join the framework and to date 6 have either joined or intend to join in the coming weeks.
The LEVI Pilot project	Delivering 100-150kw ultra rapid charging across 3 locations to test technologies, provide learning to the Department for Transport (DfT) and create a revenue income to support the wider EV network.
The Rapid Taxi charger Project	Installing 28 x 50 kw rapid chargers for the taxi community to encourage a switch to EV across the county. To date 24 EVCP's have been installed.
The Parish charger Network	Set to install up to 100, 7kw EVCP's in Parish communities across Kent in response to market failure in rural locations in the county. To date 46 EVCP's have been installed.
Ultra Rapid Charging Hubs	A project looking to create ultra rapid EVCP hubs on KCC owned land along the Strategic Road Network including A-roads. In development with internal Governance decisions required.

2.13. The above projects have focused primarily on off-street charge points, for instance in local authority owned car parks. Following the announcement of KCC's provisional LEVI funding allocation, officers are building a case for the delivery of on-street charge points. This will be subject to internal governance before seeking approval at Member level before a formal decision to apply for the funds is made.

2.14. If KCC proceed with on-street EV charge point delivery, it will not be in isolation, but to complement existing projects. The below prioritisation has been provisionally developed to define network planning and site selection:

Priority 1	Off Street Car Parks
Priority 2	On Street “Standard” 7.7kw chargers
Priority 3	Lamp Column 3-5kw Chargers
Priority 4	Other areas of influence (workplace charging, peer to peer charging, rapid charger hub deployment)

3. Conclusions

3.1. This report shows that much more work is needed to facilitate the forecast requirements for EV charge point infrastructure in Kent over the coming years and decades. KCC will continue to work with District and Borough authorities to help provide the infrastructure required for residents to make the switch, with a particular focus of those without the facility to charge at home.

4. Recommendation(s)

4.1. For information