

From: **David Brazier, Cabinet Member for Highways & Transport**
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To: **Environment and Transport Cabinet Committee - 19 May 2022**

Subject: **Electric Vehicle Charging Infrastructure in Kent**

Classification: **Unrestricted**

Past Pathway of report: NA

Future Pathway of report: NA

Electoral Division: All

Summary: This report provides an update regarding the current position of Electric Vehicle (EV) Charging Infrastructure across Kent. It follows up on the report brought to ETCC in November 2021.

Recommendation(s):

The Cabinet Committee is asked to comment on and note the contents of the report.

1. Introduction

1.1 This report gives a broad overview of the projects being delivered in Kent and outlines the next steps in response to the Government's published UK electric vehicle infrastructure strategy that has been published at the end of March 2022.

2. Electric Vehicles Charging Infrastructure

- 2.1 In March 2022, the Government published *Taking Charge: Electric Vehicle (EV) infrastructure strategy*. It sets out the vision for public charging across the UK and the role that they anticipate public and private sector partners to play in delivering this.
- 2.2 The strategy looks ahead to 2030 and the planned ban on sales of new petrol and diesel vehicles. They state: *By 2030, we expect there to be around 300,000 public chargepoints as a minimum in the UK, but there could potentially be more than double that number. (p4, Taking charge: the electric vehicle infrastructure strategy)*
- 2.3 The strategy acknowledges that the exact charging mix between high powered and slower chargers is unclear as the market is still developing. However, the Government intends to influence chargers where demand is highest and where it is difficult to install, such as on-street.
- 2.4 *We will transform local on-street charging by putting an obligation on local authorities (subject to consultation) to develop and implement local charging strategies to plan for the transition to a zero-emission vehicle fleet. These strategies should identify how to*

provide affordable, convenient charging for residents, businesses including fleets, and visitors without causing pavement disruptions that could discourage walking and cycling. (p8, Taking charge: the electric vehicle infrastructure strategy)

- 2.5 There will likely be an obligation on Local Authorities (at Highway Authority Level) to publish a clear strategy as to how they intend to help meet the wider aims of the Government’s strategy for their areas.

Organisation	Summary of role and responsibilities
<p>Local and Mayoral authorities</p>	<ul style="list-style-type: none"> • Develop and deliver ambitious tailored local EV charging infrastructure strategies that provide scaled, commercially sustainable public charging provision. They should align with wider local transport and energy decarbonisation policies. • Ensure clear ownership and resourcing of the planning and delivery of EV charging infrastructure rollout. • Ensure local chargepoints are inclusively designed and accessible for residents, businesses, and visitors, and in line with local authorities’ legal obligations. • Ensure internal processes for the installation of chargepoints (for example grant permissions) are efficient, fast and easy to navigate for those working with local authorities.

Annex 1. Roles and responsibilities, Taking charge: the electric vehicle infrastructure strategy

- 2.6 Alongside the publication of the strategy the Government has announced new funding that will be made available to Local Authorities to support this work including £500m Local EV Infrastructure Fund (LEVI).
- 2.7 KCC is already doing a lot of work to provide public charging infrastructure and will be well placed to publish an official strategy when required. The programme of works being delivered currently is encompassed in the Kent & Medway Energy and Low Emission Strategy.
- 2.8 All the projects in development and mentioned in this report leverage external funding, grants, and private sector investment – often giving an income back to the Local Authorities as landowners. This minimises up front financial risk and allows a long-term income generation while the technology and market develop.
- 2.9 Anticipating EV Charger socket requirements in Kent. In 2018 KCC commissioned CENEX, a leading not for profit consultancy in the clean transport space, to forecast EV charger demand across Kent until 2028 for passenger vehicles. In light of recent technological advances, the 2030 ban on new petrol and diesel vehicles and the new companies moving into this space; KCC asked CENEX to update this report in 2021.
- 2.10 Cenex produced a number of scenarios, including those in line with the government’s ban on new petrol and diesel vehicles from 2030 onwards, and proposed a number of

chargers, categorised by speed, which have to be installed to meet that target. The data is presented here:

Table 8: 2030 Ban Scenario chargepoint requirements.

	2021	2025	2030
7 kW	253	1,551	5,982
22 kW	58	372	1,121
50 kW	15	88	328
150 kW	1	3	56
Total	327	2,014	7,487

Figure 1 – Charger socket numbers required by 2030 in Kent

- 2.11 Figure 1 shows that by 2030 Kent will need to have 7,487 public chargers (of varying speeds) installed to meet demand.
- 2.12 In light of the publication of the recent publication of *Taking charge: the electric vehicle infrastructure strategy*, officers have calculated Kent’s share of the proposed 300,000 public chargers required nationally, outlined in that strategy.
- 2.13 Based on population and vehicle ownership figures for Kent, the share of chargers that Kent would likely need is almost exactly the same as that forecast by Cenex at around 7,000. This shows that KCC’s projects in development are on track to meet the wider national aims. It should be noted that the Government has not suggested what speed the 300,000 chargers should be although it can be assumed that 7kwh is likely to have been the speed suggested. All projections will need revisiting annually to ensure they stay at pace with technological change, user patterns and the market trends.
- 2.14 The current list of projects being delivered aims to deliver over 700 chargers, of varying speeds by the end of 2024. As previously presented to ETCC in November 2021, this puts KCC on track to delivering our required ratio of chargers in all 4 scenario forecasts (5,10,20 or 40% of chargers to be delivered by Local Authorities) to 2024. Any future strategy will seek to incorporate this ongoing work and include additional projects to ensure we meet the requirements set out by the Government and ensure all areas of Kent are catered for.

Project Name	Completion year	Target charger sockets per annum	Progress to date	Notes
Parish Charger network phase 2	2022	56	NA	24 delivered to date
District Charger Network phase 2	2022	300 (250 in Kent CC area)	NA	14 delivered to date
Rapid Taxi and Private Hire Vehicle Chargers	2022	8	NA	16 delivered to date
Parish Charger network phase 3	2023	50	NA	Predicted
District Charger Network phase 2	2023	280 (250 in Kent CC area)	NA	Predicted

Ultra-Rapid charger network	2023	20	NA	Predicted
Parish Charger Network phase 4	2024	50	NA	Predicted
Ultra-Rapid charger network	2024	20	NA	Predicted

TOTAL = 734 new charger sockets

2.15 This shows that the projects being delivered are likely to be on track and allows some flexibility if the numbers of chargers cannot be fully realised or are delayed. However, it should be noted that a certain number of charger sockets on the ground does not ensure the chargers are installed in the most optimum locations, are maintained, or are well used. Therefore, projects must be well designed, costed and planned to ensure targets are met while considering good placement.

2.16 KCC EV charger Mapping. To ensure KCC looks at the network on a strategic level and places investment and efforts in the areas where it will have the largest impact, officers in Transport Innovations are developing a mapping system. This is taking datasets such as existing charger locations, population density, off street parking capability, known future charger locations, land use and power availability to highlight those areas in Kent that are not likely to be catered for adequately. It will enable officers to understand where project development may be required and look for solutions to address the challenges in those areas. This will help provide area specific strategies where needed.

2.17 It is anticipated that localised charging in areas with little off street parking will be a particular challenge and new projects will need to be developed to address this gap.

2.18 In March 2022 it was announced that KCC, along with 9 other Local Authorities, are a named partner in the Geospatial Commissions project to understand how location data can be better utilised to support planning and delivery of electric vehicle charge points by local authorities. This work will hopefully lead to nationally available mapping tools that all Local Authorities can access.



A screenshot from the Charger map showing 5 minutes walking distance to Fast charger sockets and a 10 minutes' drive to rapid and ultra-rapid charging locations.

- 2.19 On Street Charging – It is now clear that the Government intends for Local Authorities to play a role in unlocking on-street chargers for those without off street parking. This is an area that officers are looking to address and have set up a working group to consider the approach that can be taken and included in the strategy. Officers are considering the role of public and private sector funding, practical and resource constraints and will reach out to other Local Authorities to help KCC develop an approach. Trial installations may be required to understand all aspects of on street installations in Kent.
- 2.20 To enable on street charger installations now, officers have published guidance for District Councils to follow to enable and promote safe installations on the highway. This guidance is not yet formally adopted KCC policy but could be brought forward in the coming months. Officers understand it is being used to inform central government advice on the matter.
- 2.21 There are growing numbers of “peer to peer” EV chargers being offered by private individuals and businesses who rent out their charger on their private driveway or business premises. Services such as *Zaphome*, *Co-charger* and *Book my charge* are available within Kent and an estimated 50-100 chargers are currently listed to use. These can be used by those locally who do not have access to off street parking.
- 2.22 Available Grid Power In Kent – A fundamental challenge that presents itself when seeking to install new charging infrastructure is availability of grid connections. This is not unique to Kent and Ofgem are looking into this issue. Some areas of the county are quite well equipped to accommodate new chargers while others are severely constrained and require high capital investments.
- 2.23 Officers are meeting with UK Power Networks to discuss forward planning of the EV infrastructure roll out and to enable closer working between the two organisations
- 2.24 The Government is aware of the issue and officers understand this may be changed in the future.

3. Financial Implications

- 3.1 At this stage all projects, except the Parish Charger Network and Ultra Rapid Charger hubs project, are costed, operating, and funded up to 2024. The Parish Charger Network has funding allocated to deliver Phase 1 and Phase 2 but not Phase 3 or 4. It is expected that grants will continue to be sought and no base funding will be required for that project.
- 3.2 To support the ultra-rapid charge point project it is intended to seek LEVI funding and partner with a private sector operator - this could bring forward commercially viable clean charging hubs for public use on KCC land.
- 3.3 Where possible, private sector investment will be utilised with Revenue return back to the Local Authority Landowners

4. Legal implications

- 4.1 All legal implications have been addressed on a project basis with legal advice sought as required.

5. Equalities implications

- 5.1 All charging infrastructure needs to be installed to be accessible and with equality in mind. The industry is working with Government on this topic and the findings are yet to be published. All installations partners are and will continue to be expected to ensure their equipment and installations are available for all users.

6. Other corporate implications

- 6.1 There are added health benefits to be gained from improving electric vehicle infrastructure and supporting the transition to electric vehicles. The resulting reduction in tailpipe emissions will reduce harmful air pollutants, which contribute to both acute and chronic health conditions affecting all ages.

7. Governance

- 7.1 NA

8. Conclusions

- 8.1 The report shows that KCC is well placed to respond to the Government's strategy when required and will be in a position to publish its own strategy setting out how KCC will meet the charging targets across all areas of the county. Officers will keep Councillors informed of progress, guidance, and decisions as appropriate.

9. Recommendation(s)

Recommendation(s):

The Cabinet Committee is asked to comment on and note the contents of the report.

10. Contact details

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