



FINANCE AND RESOURCES

Overview and Scrutiny Committee

Report for:	Finance and Resources Overview and Scrutiny Committee
Title of report:	Electric Vehicle Charging Points
Date:	8 th March 2022
Report on behalf of:	
Part:	I
If Part II, reason:	N/A
Appendices:	N/A
Background papers:	N/A
Glossary of acronyms and any other abbreviations used in this report:	EVCP – Electric Vehicle Charging Point ORCS – On street Residential Charge point Scheme (Government funding for installation of EVCPs)

Report Author / Responsible Officer

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Corporate Priorities	A clean, safe and enjoyable environment Building strong vibrant communities Ensuring economic growth and prosperity Climate and ecological emergency Ensuring efficient, effective and modern service delivery
Wards affected	ALL
Purpose of the report:	1. To provide an overview of current work to develop Electric Vehicle Charging Points across the Borough

	<ol style="list-style-type: none"> To set out the proposed approach to introducing EVCPs in Council Car Parks and the opportunities it brings, subject to further discussions and negotiations with potential suppliers
Recommendation (s) to the decision maker (s):	<ol style="list-style-type: none"> To note the content of the report To note the intent to conclude a commercial negotiation / procurement as required, with a further report to be produced on conclusion
Period for post policy/project review:	N/A

1. Background Summary

A quarter of all greenhouse gas emissions in the UK comes from Transport¹. In Dacorum, Transport is responsible for over 40% of the borough's emissions.²

To address this and meet the UK's Climate Emergency target of being net-zero by 2050, the UK government has banned the sale of petrol and diesel vehicles in order to support the transition to electric vehicles (EVs).

To date, within Dacorum there are approximately 1,600 EVs, it is estimated that in 8 years' time, by 2030 there will be 30,000 EVs – with this figure expected to continue to grow exponentially until around 2040 where it is predicted we will have over 80,000 EVs. Approximately 1/3 (25,000 households) of Dacorum residents do not have a driveway or garage and are unable to charge from home – as such these households will be relying on publicly available charge points (as shown by blue dots on the adjacent map).

The planning of sufficient EV charging points (EVCPs) is crucial to meet this imminent demand.

There will be a range of responsibilities to deliver sufficient EVCP infrastructure, and whilst this is not solely Dacorum's responsibility, at present whilst EV ownership is still low and charging infrastructure is still highly limited, Dacorum has an important role to play. This is especially pertinent as it is one of the biggest actions we can take to help tackle the Climate Emergency locally, especially whilst the national and local strategic plan is still developing.

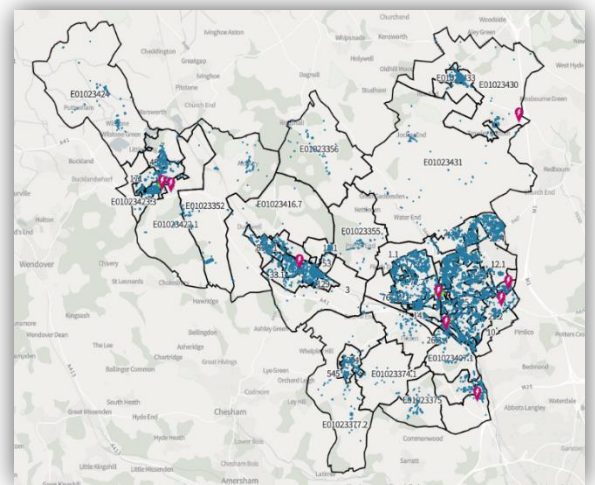


Figure 1 - Map of Dacorum showing households that will be reliant on public charge points

¹ Source: Business, Energy and Industrial Strategy (BEIS) UK Greenhouse Gas Emissions 2020

² Source: Business, Energy and Industrial Strategy (BEIS) – Local Authority Emissions 2019.

2. National and Local Support

The Government's Transport Decarbonisation Plan (TDP) was released in July 2021 but the local authority information due out in 2021 has yet to be released. Hertfordshire County Council have produced a draft EV strategy, which is subject to ongoing discussions with Boroughs but unlikely to be finalised or published in the near future due to waiting for final Government Guidance to be released.

Therefore Dacorum has continued to work on what can be carried out locally to further the EV agenda and infrastructure, including:

1. Modelling the future uptake of EV vehicles and data gathering
2. Exploring implementing EV charge points (EVCPs) in Council car parks and identifying which sites are most viable
3. Liaising with EVCP operators to understand what they can offer and what ownership models are available.
4. Evaluating the commercial model which might underpin the installation of charging points

In parallel to this, work continues on a local EV strategy and work programme that will be adapted as more information becomes available both at a National and County level.

3. Charging Hierarchy

There are a variety of different charge point types and locations that will be required to meet the EV demand. This is demonstrated by the EV Charging Hierarchy.

Understanding this hierarchy and planning accordingly will be important when developing our future EV work programme.

There are a range of actions that the Council will be planning to take under its 'spheres of influence' to support the transition to EV within Dacorum. The most important focus and priority right now is to implement EVCPs in Council-owned car parks because this is land that we own and also acts as destinations for residents and fall under the '*Destination: Occasional*' part of the hierarchy.

This report outlines the steps that are being taken to achieve the installation of EVCPs in Council car parks.

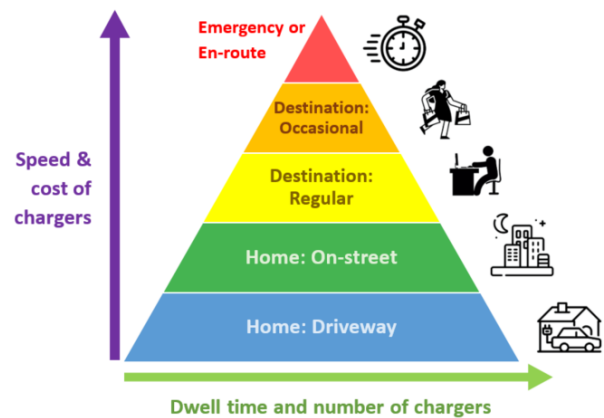


Figure 2- EV Charging Hierarchy

4. Overview of Current Dacorum EV Charging Infrastructure

In Dacorum there are currently 13 publicly accessible EVCPs. Of these, five are commercially owned and eight are Council-owned. Of the Councils 25 public Council-managed car parks, there are currently have EVCPs at 6 of these sites (24%).

The below table shows a comparison of Hertfordshire local authorities and their current EV infrastructure and how this relates to their resident populations and needs.

Hertfordshire Local Authority	Households relying on on-street parking?	% of pop'n	On-street households within 5 min walking distance of EVCP	% of pop'n	Charging sites per 1,000 on-street households
<i>Herts Average</i>	<i>19,223</i>	<i>39%</i>	<i>1795.7</i>	<i>9%</i>	<i>0.65</i>
Broxbourne	14,715	36%	886	6%	0.4
Dacorum	24,791	39%	1671	6.7%	0.6
East Herts	23,298	37%	1511	6.5%	0.4
Hertsmere	16,745	38%	1296	7.7%	0.6
North Herts	21,139	37%	1605	7.6%	0.7
St Albans	22,335	37%	3569	16%	0.9
Stevenage	16,587	44%	1153	7%	0.3
Three Rivers	11,673	31%	641	5.5%	0.8
Watford	20,180	51%	4294	21%	1.2
Welwyn Hatfield	20,769	42%	1331	6.4%	0.6

Source: Field Dynamics - [On Street Charging \(acceleratedinsightplatform.com\)](https://acceleratedinsightplatform.com)

The Dacorum data shows that 6.7% (1671) of the households who do not have access to a driveway or garage to park their car are within a 5 minute walking distance from a publicly available EVCP. This is slightly below the Hertfordshire average of 9%. Using Council Car Park assets will greatly increase publically available EVCPs. Watford have been making good progress on installing EVCPs, which has been driven by local demand due to being closer to the London's ULEZ charge, and enabled due to being awarded funding.

5. Modelling EVCP Demand in Dacorum

Dacorum have been running an EV Residents Survey since February 2020 which has received over 2000 responses to date. Over 60% of respondents have told us that they would be encouraged to buy an EV sooner if more charge points were installed in their local area. Additionally, the below chart shows that the availability of charging infrastructure is one of the biggest concerns for residents.

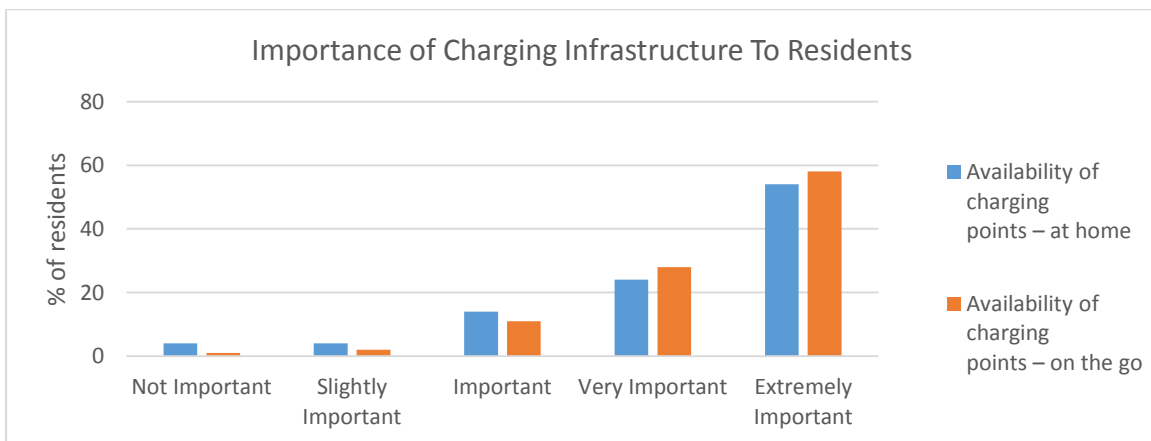


Table 1- Importance of Charging Infrastructure to Residents - data from EV Residents Survey

Work was conducted with Field Dynamics in 2021, as specialist EV consultants, to create a report specifically for Dacorum to model our future EVCP demand. Dacorum was one of the first authorities in the UK to benefit from their new 'Jumpstart' programme which provides support around this type of modelling.

The key outcomes of this work were that:

- **By 2030, we are likely to have over approximately 30,000 EVs in Dacorum³.**
This does not take into account plug in hybrid EVs, who will also be using charging infrastructure.
- **Approximately 2 in 5 households, (equivalent to ~25,000 households) do not have a driveway or garage to install home charge points.** These are symbolised by blue dots on the map (Figure 1).
- **The borough is estimated to need around 700 publicly available EVCPs by 2030 to meet demand.** Achieving this will need a collaborative effort between all land-owners, businesses and organisations. But what is clear is the Council cannot provide all of these so must focus on interventions in key areas.

The borough was modelled and split into zones to help us understand demand further (figure 3):

- **Commercial** - Zones where residents will be able to rely on commercially provided chargers
- **Public Need** - These zones have a high level of residents who will be reliant on public charging
- **Off-Street** - These zones have a high level of residents who will be able to charge at home
- **Visitor** - Zones where non-residents will make up a high level of charging
- **Minimum need** - Zones where there is a minimum need for public charging

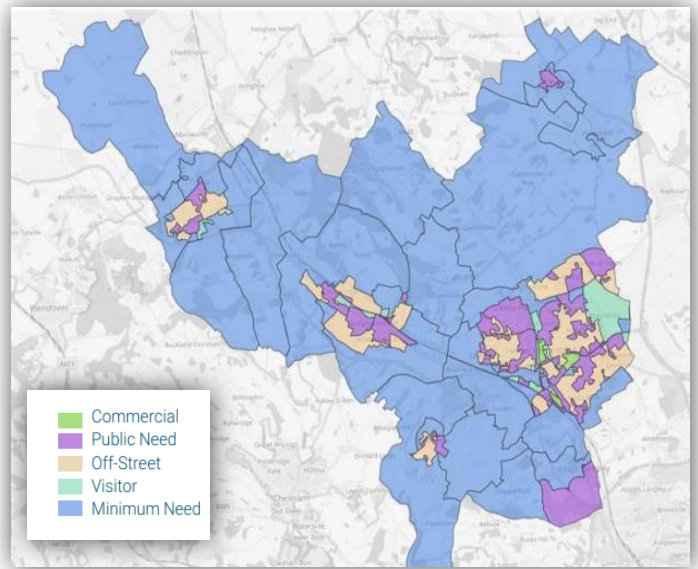


Figure 3 - Map of Dacorum showing EVCP demand zones

The map (figure 4) shows the catchment achieved in Hemel Hempstead by putting EVCPs into all of the council-owned car parks.

As demonstrated, implementing EVCPs in these areas will not be sufficient on their own to meet the needs of the borough, but provides an initial way forward by the Council to utilise their own land to add to the overall infrastructure.

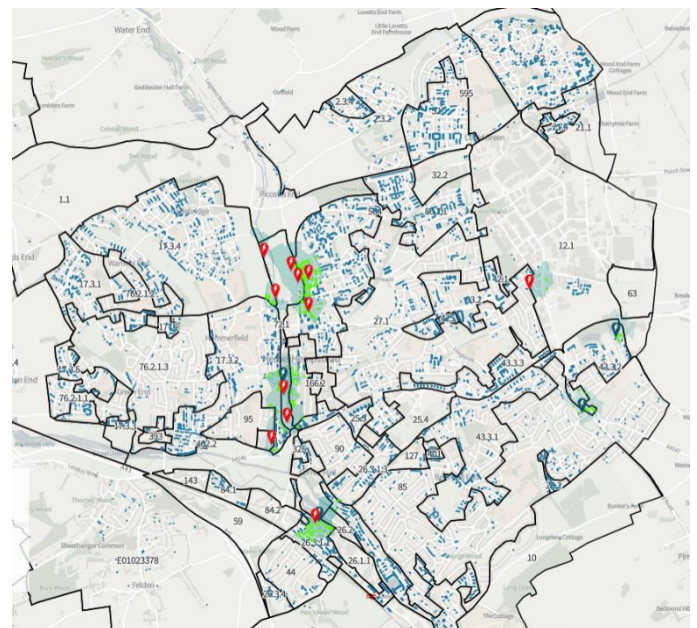


Figure 4 - Map showing DBC car parks (red), compared to residents relying on public chargers (blue dots)

6. Developing the EVCP Car Park Work Programme

³ Calculated using the National Grid: Future Energy Scenarios Consumer Transformation uptake curve.

Council Owned Car Parks and Government Funding

The [On-street Residential Charge point Scheme](#) (ORCS) provides grant funding for local authorities to install residential charge points and includes car parks in its criteria. Up to 75% of project funding is delivered through ORCS (up to £7,500 per charging point, with the limited cases up to £13,000), with local authorities expected to match-fund the remaining. The Transport Decarbonisation Plan confirmed that this funding would continue until 2024 at least.

There is a set criteria for car-parks to be eligible. This criteria has been cross-referenced with the Boroughs car parks resulting in the site list below, with sites highlighted in yellow already have existing charge points.

Car park	Area
Wood Lane End, HP2 4RA	Hemel Hempstead
The Gables, near Bell Court, HP2 5HL	Hemel Hempstead
High Street, Old Town, HP1 3AQ	Hemel Hempstead
Gadebridge Lane	Hemel Hempstead
Queensway, HP1 1HR	Hemel Hempstead
Alexandra Road, HP2 5BS	Hemel Hempstead
Water Gardens (North) Lower deck, Bridge Street, HP1 1EF	Hemel Hempstead
Moor End, HP1 1BT	Hemel Hempstead
Park Road, HP1 1JS	Hemel Hempstead
Durrants Hill, HP3 5SD	Hemel Hempstead
The Nap, WD4 8ET	Kings Langley
Langley Hill, WD4 9HD	Kings Langley
Lower Kings Road, Floors 4 and 5	Berkhamsted
Lower Kings Road, Floors 6 and 7 (weekends only)	Berkhamsted
St John's Well Lane, HP4 1HA	Berkhamsted
The Forge, High Street, HP23 5AG	Tring
Church Yard, Frogmore Street, HP23 5AZ	Tring
Frogmore Street (West), HP23 5AU	Tring
Hicks Road, AL3 8LJ	Markyate

The availability of ORCS funding does alleviate a lot of the infrastructure cost but does still result in Council investment being required to make up the remaining 25% of costs. Initial work carried out with BP Pulse showed that, for the installation of 4 charging points in a car park, the Council investment could range from between £7000 to £30,000 per car park depending on how much ORCS funding is provided.

For this reason, officers have begun to explore alternative options.

EVCP Providers

An alternative to using ORCS funding, and limiting the impact on public funds, is to partner with an EVCP Provider through a commercial contract. Several other local authorities are moving forwards with this.

Dacorum initiated conversations with EVCP providers in 2021 to understand what potential costs would be and options around this through the use of private partnerships with EVCP providers. Initial conversations led to a preferred provider, but this has since become unfeasible due to them stepping away from fully funding any EVCP.

Therefore a variety of different Fast and Rapid EVCP providers have since been approached and asked a range of questions on what they could offer us instead. Several are now willing to fully fund projects, without the need for ORCS funding, but with the main caveats:

- Long leases – e.g. 15-25 years
- Site selection – typically they want areas with very high footfall,

Some EVCP providers are also interested in using ORCS funding, and match-funding the additional 25% so that this is no cost to the Council. Additionally, there is also the option for Dacorum to pay the 25%, which will enable more profit share options. These varying funding models and opportunities will be fully understood once all proposals have been received.

What is clear from initial conversations is that a range of Fast and Rapid charging options will be needed to maximise opportunities across the Borough, with opportunities around the installation of EVCPs in car parks that can lead to an income return to the Council. This may mean partnering with more than one provider in order to install either Fast or Rapid, depending on what is appropriate in the given location.

There are also very clear commercial opportunities around partnering with such companies in the provision of EVCPs in Council Car parks, not only through potentially fully funded infrastructure costs but also a return to the Council through the life of the contract via a rental agreement (for the use / loss of a car park space) or a percentage share of income received after costs.

Risks and Opportunities

As set out, due to the commercial nature of the providers, a long term lease is being sought by most to ensure return on any investment. This can present a risk if mitigation is not ensured at the contract stage around long term financial and technological issues and these issues will need to be considered throughout the proposal evaluation process.

By working with EVCP providers that have offered to fully-fund projects, several have also committed to also paying wider costs, including the addition of electrical sub-stations where needed to improve electrical capacity. This is an important elements of the selection process, as this infrastructure would otherwise be a very costly measure for the Council, or would be a barrier to installing appropriate charging infrastructure at all.

Dacorum does find itself in a very positive commercial position due to an increased competitive market of providers, allowing potential for commercial gain as mentioned above. The work undertaken to date allows this to be maximised by having a clear understanding of need in the Borough and availability of options.

Next Steps for EVCPs in Council Car Parks

Proposals from selected EVCP providers are currently being evaluated to understand the best way forward. Additionally, some EVCP providers are on different frameworks which will impact the timelines as to whether we can give a direct award or need to go out to tender. This is all feeding into a clear commercial options appraisal going forward. Regarding investment requirements, further appraisal will be completed as part of these negotiations.

It is therefore the intention of Officers to conclude a commercial negotiation / procurement process and bring forward proposals for approval through the appropriate forums once completed.

In terms of timeframes, the intention is to move forward with installation of such EVCPs in car parks during the course of 2022/23. This would require work with any successful provider in terms of their timelines, and subject to all due diligence. But this would be the first phase of a bigger role out of EVCPs in the Borough on Council land.

7. Developing a Wider EV Strategy

As stated, the Council is limited in what it has direct control over and whilst this work is being progressed, a wider EV strategy and work plan is also being developed, which this singular aspect of providing EVCPs in local car parks feeds in to. This work plan will be subject to change dependent on advances in guidance for both national and local guidance. Initially we plan to address and explore the following areas:

Workplace Charging

A fundamental aspect of the charging hierarchy will be the provision of EVCPs in workplaces. This objective carries a range of benefits for organisations throughout Dacorum. Although the Council will have limited direct influence, besides within the Council organisation, there are several actions the Council will be able to take to encourage businesses and organisations to install EVCPs.

On-Street Charging

With over a third of Dacorum residents in the borough not having the ability to charge at home, there will be instances where there is a need to provide on-street charging if there is a pocket of high population density with households who need support charging and no sufficient EVCP infrastructure nearby. This will be especially important near large blocks of flats where parking pressures may already be an existing issue. Areas will need to be assessed on a case-by-case basis to determine what infrastructure is suitable.

Hertfordshire County Council owns the majority of the highways land, it will be necessary to collaborate with them in instances where Dacorum is not the landowner. However, in the short-term Dacorum will be gathering initial area information for where there is likely to be a need and what infrastructure is feasible in each location.

Home Charging

Home-chargers will form the most essential part of the EV charging hierarchy and are the cheapest and most convenient method of charging EVs. Approximately two thirds of households will be able to install an EVCP at home. Whilst the Council will be able to install home-chargers at some of our council-owned housing, the main role they will have to play under this objective, will be encouraging home owners and landlords to install EVCPs

Policy will need to be agreed regarding the use of cables crossing footpaths – e.g. specialised cable channels, as this may enable more residents to install wall-mounted EVCPs, reducing the demand for public EVCPs. This could be managed in a similar way to residents applying for dropped kerbs, but will be explored.

EV Car Pool

Providing EV car pools allows users to hire EVs for as little as an hour at a time. This method of short-term hiring can help overcome a range of barriers and encourage people to use EVs. Dacorum can play a role in establishing one of these, learning from several Hertfordshire local authorities have adopted an early model which allows an EV car pool to be used by staff during office hours and then be available to the public during evenings and weekends.

EV Fleet

Dacorum will work to lead by example and transition its own fleet to EV (or equivalent depending on technology available). This is currently being looked at in terms of options and availability.

Guidance will be produced and rolled out to local businesses and organisations to encourage them to also make this transition and to make the most of free support, e.g. the Energy Saving Trust's free [Fleet Advice](#) scheme.

Communication, Engagement and Guidance

Communication and engagement with local stakeholders – especially residents and organisations – through the provision of advice, guidance and support, will be a fundamental part of our role in supporting the transition to EVs. This will be especially important due to EVs being such a fast evolving technology and people requiring updates and information from a reliable, trustworthy source.

All of the aforementioned objectives will require communication and engagement to some extent – whether it is through large-scale initiatives, informative social media campaigns, website content, guidance documents, community talks, and so on.

Demystifying EVs will help encourage more people to transition more quickly. Information will need to be provided around the benefits of EVs, where and how people can charge conveniently, various funding streams and incentives available

3 Options and alternatives considered

Due to the need to address the climate and ecological emergency, and identifying transport as a major contributor to both the problem and future solutions, the Council is limited in its options around the installation of EVCPs where it is viable to do so.

1. Do Nothing – which, as can be seen from the earlier data and requirements, is not an option
2. Directly install charge points - unfortunately the Council, as with others, do not hold the expertise or capability to do this, resulting in further delays and increased on costs associated with getting in a position to be able to achieve this.
3. Work with private contractors to install EVCPs in Council Car Parks, exploring the options or fully funded or ORCS funded options dependant on type and number of EVCPs involved. While initial discussions with providers have shown that a fully funded option is available for installation of ultra-rapid chargers, the expansion to also have rapid chargers is likely to fall within ORCS funding and therefore potential commitment of Council investment. The commercial approach being taken will assess and quantify this as part of any procurement process. This approach would also build in requirements for replacement of technology as it surpassed by newer technology.

Therefore Option 3 is the lower risk option for the Council, limiting financial risk in the short and long term, while ensuring an approach that keeps the technology up to date in the Car Parks. But it should be recognised that the market is changing quickly and that there cannot be an assumption that a commercial offer available now will last, putting emphasis on the need to take forward any approach quickly.

4 Consultation

The move to EVs was agreed as part of the Climate and Ecological Emergency draft strategy that was approved by Cabinet in November 2021, which had been subject to all necessary consultation.

5 Financial and value for money implications:

The model being explored for the installation of EVCPs in Council Car Parks offers the best value for money approach, limiting any public money contribution but allowing the exploration of income return via a rental or income percentage scheme with the provider.

6 Legal Implications

The process will be subject to meeting procurement and contractual requirements

7 Risk implications:

The risk to this approach is limited due the main financial risk sitting with the provider in terms of installation and setup. The main risk of adopting a fully funded approach is the long term lease requirements of companies (20-25 years), but this is mitigated by the providers not requiring any exclusivity condition (e.g. the Council could opt to use other providers to install EVCPs in future in the same car parks) as well as contractual obligations around ensuring equipment is updated as new technology is adopted.

8 Equalities, Community Impact and Human Rights:

Community Impact Assessment - this will be completed as part of any procurement process

Human Rights – None

9 Sustainability implications (including climate change, health and wellbeing, community safety)

The work to increase EVCPs across the Borough, with priority on Council owned land, feeds directly into the climate and ecological emergency agenda and action points. As described in the report, addressing emissions from transport is key to the overall carbon emission reduction, but the infrastructure must be in place to allow this.

10 Council infrastructure (including Health and Safety, HR/OD, assets and other resources)

As described in the report, the Council has limited direct control over the installation of EVCPs, being the use of its own land assets being Council Car Parks in this case. As part of the commercial action plan around this, any implications around health and safety and resources will be considered in detail to ensure no direct or indirect escalation of risks.

11 Conclusions:

Ultra Low Emission Vehicles will play a vital part in reducing carbon emissions in the Borough and beyond. But for this to happen, and for people to be encouraged to move to such vehicles, the infrastructure must be in place to support. While Dacorum are not in a position to provide the majority of this, it does have the ability to influence by setting an example on its own land. Therefore this is a priority to get EVCPs into Council Car Parks from 2022, but through partnership working with the private sector to maximise what can be done and minimise impact on the public purse. Several leading EVCP providers are providing options around this, which will allow the progression of the procurement process. Once this has been completed, Dacorum will be in a position to update all on the next steps to see tangible actions in car parks starting in 2022.