

RBC Electric Vehicle Charging Infrastructure Strategy 2023 – CADRA Response

This a comprehensive document and the authors clearly understand the issues of building the town’s EV charging infrastructure. It has much useful information in it.

The Council’s objectives are reasonable, given the constraints which we see as funding, the logistical hurdles of implementation and a technology that is still evolving and may change significantly quite quickly.

Our specific comments and suggestions follow:

Charging for vehicle owners without of-street parking

The focus on providing solutions for residents with no off-street charging space is very welcome. North Reading has many such Victorian streets, and we would like to see early trials and implementations here.

We are concerned that the proliferation of fixed street chargers across the town will further clutter up these attractive Victorian streets, with extra signage, pavement pillars and users’ cables. This is especially concerning in conservation areas.

Pop-up charging posts could help but are costlier and when they fail will make an even greater obstruction than static pillars. Models chosen should be robust and retract easily or automatically when they fail.

Cross-pavement guttering for a resident’s cable seems a neat solution, though we are concerned it will become a problem for pedestrians when most houses have them. Will they all stay in place for the hours required without some cables coming loose? However, we very much support the proposed trials of all variants.

It might not be possible to provide an effective solution for many households, which means they can’t take advantage of a cheap rate domestic tariff, offered by their own energy supplier.

Whilst having one’s own domestic charge point is ideal, it’s easy access to a low-cost tariff that is a known barrier to EV uptake. Even the cheapest public rates are much more than standard domestic ones. We encourage the Council to explore ways of providing discounted rates to households.

Solar Panels

The strategy describes how solar panels could be built on Council land to provide electricity storage. We understand some local authorities have done this above the parking bays on their car parks. This would seem a sensible approach for all open car parks. Solar panels together with nearby battery storage provides cheap energy which can open up places where there is insufficient electricity to run many rapid chargers.

Vehicle Cost

The cost of buying an EV is becoming cheaper and there are now more used vehicles available, making them attractive to lower income families. Independent garages are popular for out of warranty cars, as they offer cheaper servicing and repairs. Currently, there is a shortage of EV trained engineers, even at major car dealers. Has the Council looked at ways of encouraging training locally?

Table 4.1: EVCP Information

This table shows the installation costs and vehicle charging times for four charger types. A Rapid charger can charge around 6 vehicles in the 4 hours a Fast charger does one. A single Rapid charger costs 60% that of 6 Fast chargers. A Fast charger is likely to be plugged in long after it has fully charged and so unavailable to other vehicles for longer than 4 hours, whereas vehicles move away from a Rapid one soon after they have charged sufficiently. This suggests it would be better to have more Rapid chargers. Set against that, public chargers used overnight could offer lower rates, however we are not aware this happens. Has or could the Council investigate this?

The Council is keen to promote park and rides, but balancing they types of chargers is difficult. Users may park and not return until hours later, suggesting they are suited to slower charging, but that will require many such charge points, to ensure there are some always available. Some park and rides have a mixture of rapid and slow. Getting the balance right is difficult when it is not clear how charging technology will develop.

For Rapid chargers, where users stay close to their vehicle for between 25-45mins, consideration needs to be given to ensure there is shelter, refreshment and toilets close by.

The CHAdeMO charging plug type is likely to die out. Consideration needs to be given to whether to continue to include a CHAdeMO option, if it adds to the cost, reduces the number of Type 2 positions or can't be easily removed.

Overall, the Council's approach to deployment is reasonable, but there is a risk that some EVCPs may not be used much, won't cover their costs and ongoing maintenance, or ever make a profit for the provider. This could apply to both Rapid ones in places they aren't much needed (park and rides), or slow chargers, for example on streetlamps.

The incidence of chargers not working currently seems to be significant. It's important the Council carefully considers this when approving devices to ensure they are highly reliable, and that operators will commit to high levels of service, including 24/7 support and contact for users.

The funding options to be explored include those that could generate revenue for the Council. Relying on income from EV charging is risky, given that we believe some sites and types may well become obsolete before they cover costs.

We support the Council encouraging operators of petrol stations to rebuild them as EVCPs. It seems wrong to only build on new sites, which in some cases are greenfield sites, when petrol stations will eventually become obsolete.

4.7 Hydrogen Fuel

There are questions about the cost of providing truly green hydrogen. Vehicle engines are not as simple as an EV, being more akin to petrol engines. As the strategy says, HGV and long distance/rural buses may have to adopt hydrogen.

e-Scooters and e-Bikes

We are concerned about the risks posed by e-Scooters for pedestrians, particularly the elderly and those with mobility or sight problems, and children. They can also be a risk on roads to other vehicle users.

We have similar concerns about e-bikes, especially ones much favoured by delivery riders that do not seem to require the use of the pedals. They are often driven on roads and even pavements at speeds well above the 15.5mph legal limit, the same as for e-Scooters.

With the Government showing no sign of legislating nor of police enforcement, the increasing illegal use may result in de facto acceptance.

We would like to see the Council expressing concern about this and using what powers they possess to ensure the Town's pavements and roads are safe.

Loss of revenue from fuel duty

As the balance shifts from petrol vehicles to EVs, the Government will need to replace the income raised from fuel duty. Has consideration been given to what the impact might be on the EVCP infrastructure?