Agenda Item: **Electric Vehicle Charging Points**

Report to: **Climate, Nature and Environment Committee**

Date: **Wednesday 8th September 2021**

Subject: **To consider plan for Electric Vehicle Charging Points**

Summary: The committee is asked to consider how it wishes to proceed with the installation of EVC points in Bexhill-on-Sea.

Recommendation

a. **To consider next steps with regards to EVC points in Bexhill-on-Sea.**

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1. What is an electric vehicle charge-point?

An electric vehicle charge-point looks similar to a petrol pump but instead delivers electricity to an electric vehicle (EV). Although the technology is evolving quickly, it is currently not possible to refuel in as little time as at a petrol pump nor do many EV drivers need to.

There are several charge point types available and each has the ability to charge vehicles at different speeds, measured in kilowatts (kW).

These range from a 3 pin plug or 7kW home charge-point right up to what is called 'ultra-rapid' charging - generally available on the motorways and designed to provide up to 100 miles of range in 5-10 minutes.

	Slow (3 to 7kW)	***Fast*** (7 to 22kW)	***Rapid*** (up to 50kW)	***Ultra-Rapid*** (100 to 350kW)
Charge time:	4 to 8 hours	2 to 4 hours	25 to 40 mins	5 to 20 mins
Vehicle range added in 15 mins:	3 to 6 miles	6 to 20 miles	35 to 40 miles	50 to 150 miles
EV compatibility:	All	All - some vehicles may charge slower than others	Dependent on connector type - not all battery EVs and very few plugin Hybrid EVs are capable of accepting a rapid charge	More vehicles are now starting to accept ultra-rapid charges, not just the high end models

	Slow (3 to 7kW)	***Fast*** (7 to 22kW)	***Rapid*** (up to 50kW)	***Ultra-Rapid*** (100 to 350kW)
Typical photo:				

From Charging Electric Vehicles (Energy Saving Trust)

It is most likely that Fast (7kW) charge-points, using Type 2 connectors, will be most suitable for a town council public point because they provide the most appropriate speed for communities looking to serve visitors and local residents. Type 2 connectors are industry standard and will connect to the greatest number of vehicles.

The majority of people charge their vehicles over night at home or during the day at destinations visited regularly such as a place of work, supermarkets or restaurants. This is typically done using a lower power charge point as this is usually the lowest cost and makes good use of time when the vehicle is not being utilised.

Charge-points can either be wall mounted, which is typically the lowest cost, or located on a pillar or post.

More information can be found at the Energy Saving Trust Charging Electric Vehicles

2. What speed charge-points should be installed?

It is important to consider who will likely use the charge-points. For example, overnight resident parking will generally require 7kW charging as 4-8 hours is plenty of time to recharge most vehicles. In contrast, visitors and people passing through could benefit from faster day time charging facilities, with 11kW+ charging a more appropriate choice, particularly if three-phase AC power supply is available. The power supply available will largely determine what charge-point we can install.

3. At which locations can we install charge-points?

Charge-points can be installed on land that is publicly available to use with express permission from the landowner. The town council does not currently own any land therefore suitable land would need to be sought and permission obtained.

Parking bays with charge-points should be reserved solely for the use of electric vehicles to charge. This will result in a loss of parking spaces for other users who do not drive electric vehicles.

4. Do we need planning permission to install an EV charge-point?

Usually planning permission is not required, however in some specific instances it may be, such as if it is located within two metres of a public highway or is within a conservation area.

If applicable, this will add to the time required to install any charge-points.

5. Economic Case
Is it achievable? Is the town council capable of delivering the project?

The town council has little resources due to its recent inception and has not allocated any budget in this financial year to install ECV points.

The town council does not own any land, therefore landowners would need to be approached and agreements sought before surveys could be carried out for suitability and costing purposes.

The government is offering funding schemes for domestic installations, there is limited external funding available for local councils at present. The principal authorities may already have a plan for the installation of EVC points and this should be explored to avoid duplication.

6. Is it value for money?

Charging points will require a capital outlay, charges to customers will vary according to tariffs. Further investigation will be required once locations have been approved with landowners. Locations would need to be identified that are close to a suitable electrical supply. Load balancing and site supplies would need to be considered.

7. Financial Case
Is it affordable? - Are the costs realistic and affordable?

The costs are unknown until suitable locations are agreed with landowners and surveys carried out.

A relatively straightforward dual 7kw post mounted charger with bay markings and signage could cost around £4000.

8. Management Case
Is there robust systems and processes in place?

Local research has not yet been carried out to understand the numbers of EVs in the area, or how the installation of EVC points will increase the take up of EVs. The government's Road to Zero strategy sets out the aim for all new cars and vans to be zero emission by 2040.

The government proposes that new non-residential buildings or those undergoing major renovation with more than 20 parking spaces must have at least one EVC point.

9. Legal Implications

The town council does not have a specific power to install EVC points, therefore it would use the General Power of Competence to fulfil this type of project.

10. Insurance

There may be external insurance risks of placing equipment on land owned by others and this should be investigated before proceeding.

11. Impact on Climate Change and Biodiversity

The council should consider that encouraging EVs shall have a positive effect on emissions in the town.

12. Community Consultation/ Engagement

No specific community engagement has taken place to establish a need for ECV points in Bexhill-on-Sea. 'The Big Survey 2021' could inform on this subject further.

13. Risk Assessment

The council would need to identify risks and mitigation strategies once more information is known about locations.

14. Summary

The council is limited in resources and land to move forward with an EVC plan and is asked to consider how it wishes to proceed.

15. Decision Required

To consider next steps with regards to installing ECV points in Bexhill-on-Sea.

Town Clerk
1st September 2021