

# Design and Access Statement

## Introduction

The EV Network are proposing to install 5 Electric Vehicle (EV) charging stations covering 10 parking bays on Waterfront Retail Park, Custom House Way, Greenock PA15 1EG. This site is an ideal location for EV charging stations, providing customers with a safe place to charge their vehicle whilst using the on-site facilities. The ultra-rapid chargers proposed mean that customers charging their vehicles do not have to spend extra time waiting for their vehicle to charge and are able to quickly continue their journey.

## Planning Statement

The UK has binding climate agreements to reduce the levels of CO<sub>2</sub> emissions by at least 80% of 1990 levels by 2050. The Government has set out its plan of action for greenhouse gas reduction in the Carbon Plan (December 2011). The plan identifies that transport has a critical role in meeting the Climate Change Act (2008) obligations. The CO<sub>2</sub> emissions of a car are directly proportional to the quantity of fuel consumed by an engine. While there has been progress in reducing emissions of air quality pollutants from vehicles, there has been less progress in reducing CO<sub>2</sub> from cars despite improvements in engine efficiency<sup>1</sup>. This is where electric vehicles come in as crucial to help reduce CO<sub>2</sub> emissions. Electric vehicles do not produce any exhaust emissions during their operation and as such the government is pushing for the increased adoption of electric vehicles to help decarbonise our economy. As the number of electric vehicles on the road increases so the need for infrastructure – number of charging points - required to support the vehicles is also increased.

Electric vehicle ownership is on an upward trajectory with many forecasters predicting exponential growth over the next two decades. By 2040, Bloomberg New Energy finance predicts that 55% of all vehicles being sold worldwide will be electric, and 33% of all fleet

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<sup>1</sup> <http://www.dft.gov.uk/vca/fcb/cars-and-carbon-dioxide.asp>

vehicles will be electrified. To support this expected growth in electric vehicles it is essential that a fully developed electric vehicle charging infrastructure is established in the UK, especially to overcome and remove the sense of 'range anxiety'. Essentially this is the fear of having insufficient power to reach your destination or the next charging infrastructure and for users to be able to recharge in a practical time frame.

In 2017 the Scottish government announced 'Switched On Scotland, Phase Two: An Action Plan For Growth'. The plan is designed to accelerate Scotland's adoption of electric vehicles, helping to decarbonise the transport sector. The plan has 10 key actions which look at all areas of EV adoption including the importance of having a suitable charging infrastructure to support the growing number of EV's on the road. Action 7 from the plan, 'Support the development of innovative EV charging hubs across Scotland', sets out the role charging hubs will have in the future of EV charging in Scotland. The chargers proposed in this application form a small hub and therefore help to achieve the aims of the Switched on Scotland action plan.

National Planning Framework 4 ('NPF4'). The NPF4 was adopted by Scottish Ministers on 13 February 2023. It sets out the government's planning policies for Scotland and how these are expected to be applied. The NPF4 supersedes the previous National Planning Framework 3 (June 2014) and Scottish Planning Policy (June 2014). The key policies of relevance to the proposed development are Policy 13 (Sustainable Transport) and Policy 14 (Design, quality and place).

Policy 13 (Sustainable Transport) states "proposals to improve, enhance or provide active travel infrastructure, public transport infrastructure or multi-modal hubs will be supported. This includes proposals for electric vehicle charging infrastructure and electric vehicle forecourts". Clearly the proposals set out here for an EV hub on an existing retail park strongly fit with the objectives of Policy 13 and therefore this application should be supported following NPF4.

Policy 14 (Design, quality and place) highlights the need for high quality and sustainable design and should improve the quality of an area, regardless of the scale of development. The proposed EV hub provides important sustainable infrastructure. As such this should be seen as an improvement to the existing site following high quality design standards to provide a strong example of what an EV hub should be. The design of the site is covered in more detail later in this report, but in line with Policy 14 the EV hub has been designed with the latest accessibility standards in mind to deliver a high-quality install.

## The Equipment

The EV Network only install the latest in Ultra Rapid (150kW +) charging technology. The EV chargers have been specially selected for this site to maximise the power available from the local grid whilst providing the fastest charging experience to the customer charging their vehicle.

The charger proposed on this site is the Alpitronic HVC300 which can deliver an impressive 300kW charging. It uses the latest technology to deliver high powered charging along with contactless payment and the ability to charge two vehicles at the same time. The HVC300 is proven to be a class leading charger with reliability at its heart.



To support the EV charging station additional equipment is required. To secure our connection from the local grid we require a substation building. This will typically be a green GRP (glass reinforced plastic) structure which is commonly seen at roadsides and other developments. Elevations for the substation is included in the application and its location will be shown on the submitted plans. In addition to the substation, we also require a building for the metering and safety equipment for the chargers. This building will hold various switches and relays for each of the chargers enabling them to be individually switched off for safe maintenance. Again the details of this structure is provided with the application.

## Installation and the Site

The proposed installation will provide key EV infrastructure for visitors to the retail park using any of the onsite facilities. The EV charging hub allows for 2 accessible PAS 1899:2022 compliant bays and 8 normal EV bays. In total the EV design covers 14 existing parking bays to provide 10 EV bays. This means that 4 parking bays have been removed from operation. This is due to the inclusion of accessible bays and the substation which take up more space on the site, however, given the scale of the parking provision that already exists on the wider site, this is seen as an acceptable parking loss for the provision of a high standard EV charging hub, which is inclusive for all EV drivers. As this install is part of the Waterfront Retail Park, there is a wider car park that still exists and serves the wider retail park with ample parking provisions. Therefore, the loss of four parking bays is not seen to negatively impact the wider site.

Additional accessibility measures are proposed for this site in line with the PAS 1899:2022 document. This includes wide bollard placement for clear access to the charger unit, chargers being installed flush with the car park surface which removes kerbs as an obstacle and hardstanding around the charger for a safe and stable platform to initiate a charge. Further lighting is proposed around the EV chargers to ensure the EV charging area is well lit. Again, this provision is in line with the recommendations set out in PAS1899:2022 to ensure a safe and accessible environment. One existing light column is proposed to be removed, as shown on the Planning Layout as it is now redundant with the new lighting scheme proposed.

The installation process for the charging stations is relatively simple and only requires a concrete foundation under the chargers to anchor them in place. Slightly larger works are required for the substation base which requires deeper excavation, but the principles are very similar with a concrete foundation to be installed. Once the foundations are in place the GRP for the substation, feeder pillar and the charging unit are landed and bolted down. Overall, the relatively simple installation process can be completed in 2 weeks for a site of this size.

The site will be accessed using the existing access routes into and out of the site. These will be suitable for the installation and long term operation of the equipment.

The chargers are monitored 24/7 to ensure they are in good working order and available to anyone who turns up and connects for a charge. If there are any connection issues, there are contact numbers displayed on the chargers for the customer to use. This will enable an operative to remotely control the charger and try to resolve the issue. Should any issue require a physical presence on site, the EV Network have a team of engineers who will be deployed to attend site and correct the issue. The engineers regularly attend site to carry out routine maintenance and sure the site is clean and tidy.

## **Summary**

The EV Network are proposing to install 5 EV chargers covering 10 bays at Waterfront Retail Park. The proposed EV hub uses the latest cutting edge 300kW chargers designed with the latest accessibility standards in mind to deliver a high standard EV charging hub. The site is an ideal location for ultra-rapid EV chargers, enabling visitors to the site to charge their vehicle whilst using the on-site facilities and enabling them to continue their journey without the need for long wait times. Installation of EV chargers at this site is a vital addition of key infrastructure to support the uptake of electric vehicles across the UK and help the Government to reach its net zero carbon emissions targets.