



Design and Access Statement

McDonalds - Glossop

10 October 2023 - Rev A

Introduction

Provision of two new electric vehicle charging stations and associated equipment at McDonalds, Glossop car park. Situated on Glossop Brook Road, SK13 8GN.

This statement is to be read in conjunction with all related documents and drawings uploaded as part of this planning application submission.

InstaVolt Ltd are proposing a development of two electric vehicle (EV) charging stations with associated equipment. InstaVolt own, install and operate our own rapid EV charging stations, leading the way in EV charging infrastructure. Using the latest cutting edge technology, InstaVolt are helping to make the UK an easier place to own and operate an electric vehicle providing rapid charging to any EV.

Planning Statement

Why do we need electric vehicles?

“The full transition to electric vehicles (EVs) will be one of the most important actions to achieve the UK’s Net Zero target” – The Climate Change Committee, 2020¹.

The UK government has pledged to reduce its greenhouse gas emissions by 100% from 1990 levels by the year 2050, this is known as their net zero target. To reach this net zero target, the greenhouse gas emissions produced by the UK would be equal to, or less than, the emissions removed by the UK from the environment.

This net zero target was conceived from a recommendation made by the Climate Change Committee in 2019 and was made legally binding by the UK government, of which was the first net zero emissions law to be passed by a major economy¹.

The transport sector is the largest emitter of greenhouse gases, responsible for 25% of the UK’s total emissions. Some 52% of those transport emissions come from cars.

In November 2022, the government announced a ten point plan for a green industrial revolution. As part of this revolution, the government proposes to ban the sale of new petrol and diesel cars and vans by 2035.

This ban encourages the uptake the electric vehicles (EVs) as a way of reducing transport emissions. EVs run, either partially or wholly, on electricity stored on board the vehicle in batteries or produced from hydrogen.

Point four of the government’s ten point plan for a green industrial revolution is titled ‘*Accelerating the shift to zero emission vehicles*’ and it highlights the need to accelerate the rollout of electric vehicle charging infrastructure to support the inevitable growth in the number of EVs. This application is a key part of providing that necessary infrastructure to help deliver the government’s plan².

¹ <https://lordslibrary.parliament.uk/mission-zero-independent-review-of-net-zero/#:~:text=The%20net%20zero%20target%20refers,the%20UK%20from%20the%20environment.>

² <https://commonslibrary.parliament.uk/research-briefings/cbp-7480/>

To support the shift to EVs the government have published various strategies including the '*Taking charge: the electric vehicle infrastructure strategy*' policy paper from March 2022³. This policy paper particularly conveys the urgency of a reliable and comprehensive public charging network across the UK to achieve the commitment to meeting net zero targets.

This carefully thought-through proposal and safe, accessible, and convenient charging location also aids local authorities in meeting their objectives for sustainable transport within their own local planning policies.

The local authorities' support of the transition to EVs and the installation of necessary charging infrastructure will be crucial to reduce greenhouse gas emissions by 2050. As electric vehicles do not produce any exhaust emissions, their increased adoption will help decarbonise our society. Not only will decarbonising transport be the big advancement in meeting net zero targets, but it will also improve health by removing a source of toxic air pollution and reduce daytime noise levels for more enjoyable places to live, work and visit as EVs are extremely quiet compared to traditional vehicles.

The Technology

InstaVolt's primary goal is to provide a fast and reliable rapid charge network. In order to deliver this goal, the rapid chargers used by InstaVolt are 160kW chargers which are manufactured by BYD. InstaVolt only use the latest DC rapid charging technology on its sites. Each station is equipped with two connecting plugs: CHAdeMO and CCS. These are the two most common types of connectors used on all EV's for DC charging. This means the chargers are open and available to all EV drivers.



Figure 1: BYD 160 charging unit.

Payment

To ensure ease of use for customers, InstaVolt chargers accept contactless payment via a debit or credit card. To use the chargers, there is no requirement to sign up to any apps or subscription services, users can simply tap and go to only pay for what is used. The 15-inch LCD touchscreen lets drivers interact with instructions, information, or promotions.

³ <https://www.gov.uk/government/publications/uk-electric-vehicle-infrastructure-strategy>

The Site

The proposed site is at McDonalds, Glossop which will have a car park associated with the premises. It is within this car park that we are proposing the installation of the charging stations. This site has sufficient space for the charging units and the location has been carefully selected to not interfere with day-to-day access, deliveries, movements around the carpark and existing utilities within the site. It will also have no detrimental impact on the surrounding spaces adjacent to the site.

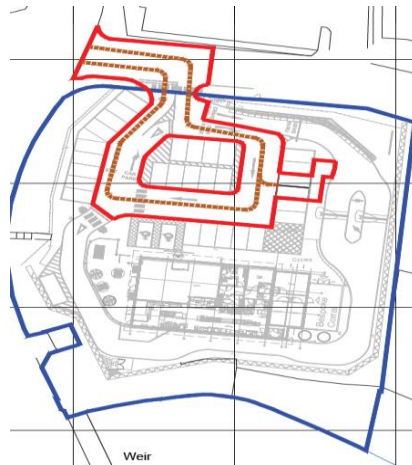


Figure 2: Location Plan

Two charging units will be installed, one to service each EV charging parking space. The EV parking bays will be clearly marked on the ground using line painting.

The parking bays are measured at 2.5m x 5m, designed in accordance with UK standard space requirements.

Along with the EV charging units there will be a feeder pillar. The feeder pillar is a box that provides housing for the point of connection from the EV charging units to the local distribution network operator.

Another reason this proposed site was selected was for the existing access in to and out of the site. The existing access is suitable for the installation and ongoing operation of the chargers, and this will not be changed.

The charging stations are safe, secure, and have 24-hour monitoring. Should an issue occur with a charging station, our control centre will be notified, and an engineer dispatched to the site. In addition to this, there is a telephone number of which the user can call for 24-hour support. InstaVolt prides itself on 99% upwards network availability.



Figure 3: Feeder Pillar RMC 2100

Waste

As the proposed installation for the EV charging stations is small, all waste can be removed during/at the end of the working day and will be recycled where necessary. The whole installation should only take around 1 week, and if removed daily, there should not be any build-up of waste.

Flood Risk

The information obtained to undertake this flood risk assessment has been taken from the 'flood map for planning service' website provided by the UK Government.

The site lies within Flood Zone 1 which has a low probability of flooding from rivers and the sea.

The site also lies within an area of medium risk of flooding by surface water, meaning our proposed location has a chance of flooding from surface water of between 1% and 3.3% each year.

The proposed installation will not have any impact on the hydrodynamic regime which currently exists on the site. The proposed surface of the parking spaces will be tarmac, and this will not be changed. There will be a small amount of concrete installed for the foundations of the units, however, this will be less than 4.5m² in total area and therefore not have any impact on the surface water runoff associated with the site.

The drainage which already occurs on the site will continue to operate as normal and will not be affected by the development. Given the scale of the development is small and the change to surface materials is very minor, there will be no impact on the existing hydrodynamic regime and therefore no increase in flood risk to the surrounding area.

Conclusion

The two proposed EV charging units at McDonalds, Glossop will provide the essential infrastructure required within the local area and as part of the bigger picture on the UK's journey to be net zero by 2050.

This considered design proposal and carefully selected location also contributes to the government's goal of building a comprehensive and reliable public charging network across the UK to further support the transition to EVs as the chargers proposed are accessible for all EV drivers to use.

All of InstaVolt's sites are driven forward with security, safety, accessibility, and sustainability in mind so local authorities can rest assured that our development proposal will aide their local communities in the transition to a low carbon economy for years to come.