Building regulations - energy standards and associated topics - proposed changes: Scottish Government consultation

Cycling Scotland submission
October 2021

Part 7 – Electric vehicle charging infrastructure

Question 51 – What are your views on our policy goal to enable the installation of Electric Vehicle (EV) charge points and ducting infrastructure (to facilitate the future installation of EV charge points) for parking spaces in new residential and non-residential building parking?

As acknowledged in the consultation, emissions from transport are a significant issue, with transport being the largest single emitting sector in Scotland. Much of these emissions are from cars travelling short journeys, usually between 2 miles and 5 miles in length. Switching many of these journeys to electric vehicles has been proposed as an effective way to tackle the climate challenges and reduce emissions from transport.

Whilst such vehicles have a role to play in helping to decarbonise transport, they should not be relied upon too heavily to achieve desired policy outcomes. Such vehicles still represent vehicular traffic on the roads and issues of congestion and emissions, from very harmful particulate matter emissions from braking and tyre wear, remain. The biggest barrier to cycling is concern about traffic on the road, and so a large number of these vehicles, in place of conventional petrol or diesel vehicles, on the road may discourage people from cycling, which could undermine the achievement of emission reduction targets and broader climate change objectives.

Where electric vehicle infrastructure is being installed, it is essential that it is also readily accessible by e-bikes. E-bikes have an important role to play in making cycling more accessible to individuals who feel unable to cycle using a traditional bike and make tackling hilly terrain easier and facilitate travelling longer distances. Failure to support e-bike access to charging infrastructure in this regard would be a significant missed opportunity in the journey to net-zero.

Consideration also needs to be given to the placement of charging points to ensure they do not negatively impact on accessibility for pedestrians, people cycling and other vulnerable road users. For example, charging cables can be a significant trip hazard and charging units can block pavements or footways, making environments hazardous and less accessible for vulnerable road users. It is essential that such considerations are taken into account when deciding on the location and placement of charging infrastructure.

We note reference in the consultation document to the differences in residential off-road parking availability between local authorities in Scotland. For example, in many cities and urban areas, availability of residential off-street parking is significantly lower than in more rural areas. Tenure type and a range of other factors, including a lack of space, have a role to play in this; however, for many people living in urban locations, in particular in compact city locations, it is an active choice not to own a car. This needs to be accounted for when planning locations for the installation of domestic charging points. It shouldn't be assumed that EV charging points are required by all residents or that installing them is the optimal

outcome in all areas. In many locations, provision of secure cycle parking, for example, could be more appropriate and better respond to residents' needs, through facilitating improved access to more active and sustainable modes for example. Indeed, in many compact urban areas, such as in city locations in Glasgow and Edinburgh where secure cycle hangar storage has been installed, there has been very high demand for the storage, with both local authorities reporting to be at or nearing 100 per cent capacity for the secure storage provided. These and other wider influencing factors should be taken into account when considering the installation of residential charging points. A blanket nationwide approach might not be appropriate in this regard.

With regards to non-residential parking, it is also important to ensure charging infrastructure can be accessed by e-cargo bikes. The use of e-cargo bikes can help to facilitate sustainable options for the movement of goods and services, specifically for first and last mile deliveries. E-cargo bikes, where utilised for such deliveries, have an important role to play in reducing greenhouse emissions from transport and improving air quality, as they can help to reduce the number of freight and delivery vehicles on the road. Recently published research found that emissions from last mile deliveries accounted for 6.6% of all road transport emissions in Scotland[1], demonstrating a significant negative climate impact. Going forward, it is important that action is taken to support and promote the use of these bikes for deliveries and that those making deliveries are incentivised to do so, where appropriate. This includes supporting and facilitating access at non-residential charging points for both businesses delivering goods, and members of the public who choose to use them for shopping and other functional trips, for example.

Additionally, e-bikes and e-cargo bikes are more vulnerable to vandalism and so any charging infrastructure provided should also consider this. For example, a standalone charging point may be inadequate in terms of security, if it is not embedded within or next to other cycle parking options, such as bike lockers or cargo bike-specific Sheffield stands. The same would also apply to any form of residential parking for cargo-bikes, in particular for anyone living in a flat or similar accommodation, where they don't have their own private garden or storage facility.

Question 52 – What are your views on our preferred options for:

- New residential buildings - all dwellings with a parking space to have at least one EV charge point socket with minimum 7kW output power rating. Exemption to requirement to install EV charge point if additional cost of electricity grid connection exceeds £2,000. If exemption applies ducting infrastructure to be installed in each car parking space.
- Residential buildings undergoing major renovation - for buildings with more than 10 car parking spaces, ducting to be installed in each residential car parking space to support the future installation of an EV charge point. EV charge points sockets to be installed, with minimum 7kW output power rating, in as many residential car parking spaces as the electrical capacity of the building post-renovation allows. Exemption applies if the cost of installing recharging and ducting infrastructure exceeds 7% of total major renovation cost.
- New non-residential buildings - for buildings with more than 10 non-residential car parking spaces, 1 in every 2 non-residential parking spaces to have ducting installed and 1 in every 10 non-residential parking spaces to provide an EV charge point socket with minimum 7kW output power rating.

[1] https://www.climatexchange.org.uk/media/4893/cxc-last-mile-delivery-in-scotland-july-21.pdf

- Non-residential buildings undergoing major renovation - for buildings with more than 10 non-residential car parking spaces, 1 in every 2 non-residential parking spaces to have ducting installed and 1 in every 10 non-residential parking spaces to provide an EV charge point socket with minimum 7kW output power rating. Exemption applies if the cost of installing recharging and ducting infrastructure exceeds 7% of total major renovation cost.
- Existing non-residential buildings - by 1 January 2025, for buildings with more than 20 non-residential car parking spaces, 1 in every 2 non-residential parking space to have ducting installed and 1 in every 10 non-residential parking space to provide an EV charge point socket with minimum 7kW output power rating

Further to our earlier comments on e-bikes, provision for cycling requires significantly less space and is thus much more space efficient. On average, cycle parking takes up eight times less space than car parking i.e., for every car parked, eight bikes could be parked in the same amount of land-space. In relation to charging infrastructure, significantly more e-bikes can be charged in the same limited space.

Question 53 – Do you agree with the Scottish Government's preferred options for the exemptions as set out in section 7.6.1?

If you disagree, please explain why?

We note exemptions will not apply to small and medium size enterprises. Being forced to install EV charging infrastructure could be a significant cost for such businesses, which some may not be able to afford.

Given that many SMEs are local, independent businesses operating in town centres and local areas, they should be supported and, where appropriate incentivised, to adopt alternative sustainable and low carbon modes, including standard cargo and e-cargo bikes for deliveries (for example). As previously mentioned, e-cargo bikes have an important role to play in helping to decarbonise deliveries and the transportation of goods, especially over short distances. In this regard, such businesses should not be forced to install EV charging points that they cannot afford, and which may not be suitable for their business. The EV charging infrastructure required to charge an e-bike or e-cargo bike is much less than that for a car or other vehicle, with the battery being able to be removed and charged via domestic plug sockets. Where an external charging point is required for an e-bike or e-cargo bike, this is likely to be significantly cheaper and require less space.

Question 55 – What are your views on the proposed provision for charge points for accessible parking spaces? Do you have examples of current best practice for the provision of charge points for accessible parking spaces?

It is welcome that accessibility considerations have been included as part of the consultation. Ensuring those with additional accessibility needs are able to access the modes they need to support their daily transport needs is essential.

Where EV charging infrastructure is provided, as with standard e-bikes, it is essential that it is readily accessible by non-standard electric bikes, such as tandems, to support and meet accessibility requirements.

Question 56 – Do you have any other views that you wish to provide on the EV section of the consultation (e.g., the minimum standard of EV charge point or safety within the built environment?)

When considering the location of EV charging points, it needs to be taken into account how and where the power for the charge points comes from. It is essential that the power used comes from a sustainable source to ensure that climate change objectives are not fundamentally undermined. For example, there has been anecdotal evidence reported of diesel generators being used to power EV charging points in some areas, where there is limited connectivity to the grid or other power sources. This fundamentally undermines climate change and emission reduction objectives.