

NEATH PORT TALBOT COUNTY BOROUGH COUNCIL

**Environment, Regeneration and Streetscene Services
Cabinet Board**

14th November 2023

Report of the Head of Streetcare – Mike Roberts

Matter for Decision

Wards Affected: All Wards

Electric Vehicle On-Street Home Charging

Purpose of the Report:

To inform Members of the current position regarding on-street electric vehicle charging from home electrical supply and actions required.

Executive Summary:

Members will have been aware of the UK Government policy that the sale of all new solely petrol and diesel cars and vans was to end in 2030 with all new cars and vans to be fully zero emission at the tailpipe from 2035.

This policy was recently amended to delay the end of the sale of all new petrol and diesel cars to 2035, in line with the deadline for hybrid vehicles. However, the zero emission vehicle mandate still requires 80%

of new cars and 70% of new vans sold to be zero emission by 2030, increasing to 100% from 2035, so this delay is not anticipated to significantly impact the uptake of battery electric vehicles.

All Welsh Local Authorities have been contacted in the development of this report. Those that responded all confirmed that on-street home charging involving a cable being run from the property across the highway to a vehicle is not currently permitted. However since contact was made, at least one has now agreed to undertake a limited trial in partnership with a private company for the installation of cable channels.

Demand associated with on-street parking is only going to grow as the use of plug-in battery electric vehicles becomes the norm.

This Council does not currently have formal policy on this matter which is needed. It is therefore proposed as part of a consistent approach with other Welsh Local Authorities across Wales that a moratorium is placed on electric vehicle on-street home charging for the time being pending guidance from Welsh Government, and the development of innovative solutions as referenced in Welsh Government's Electric Vehicle Charging Strategy for Wales Action Plan, and as currently being discussed by Transport for Wales.

Background:

The U.K Government's 2018 Road to Zero Strategy outlined how it will support the transition to zero emission road transport and reduce emissions from conventional vehicles during the transition. Since the Strategy was published, the U.K Government has introduced the zero emission vehicle mandate which sets a date of 2035 for the end of the sale of all new petrol, diesel and hybrid vehicles.

Home charging is a popular form of charging an electric vehicle due to the convenience, and ability to benefit from discounted domestic Electric Vehicle (EV) tariffs for electricity which can significantly reduce running costs. This is not a problem where a resident has

offroad parking such as a driveway, but presents issues for the Council as Highway Authority where they do not and have to park on-street.

Councils across Wales are starting to receive correspondence regarding the trailing of cables across footways in order to charge vehicles onstreet, outside of houses. However, the trailing of cables poses a tripping hazard for the elderly or disabled, or partially sighted/blind pedestrians, and would likely be in contravention of section 178 and/or section 162 of the Highways Act (Details provided in Appendix A).

The trailing of cables also potentially presents an electrical hazard where the Highway Authority cannot be sure of the integrity of the equipment. This raises safety issues including: overheating of plug sockets/cables; unmonitored cables being damaged, displaced or vandalised, leaving live wiring exposed and potentially risking electrocution to anyone coming into contact with it.

Risks can be mitigated to an extent by the use of a high visibility cable mat protector, but this would still result in a trip hazard, a potential problem/inconvenience for wheelchair/mobility scooter users and those with pushchairs/prams etc. Notwithstanding these problems some Councils, such as Hampshire County Council, have been allowing the trailing of some cables with a cable mat protector (See their guidance for <https://www.hants.gov.uk/transport/electric-vehicles/ev-chargingguidance>). However, Oxfordshire City Council in comparison do not allow cable mat protectors under any circumstances (See their guidance) <https://www.oxfordshire.gov.uk/residents/environment-andplanning/energy-and-climate-change/electric-vehicles>).

There are several new potential solutions designed by private companies which are in the process of being trialled by a small number of English Local Authorities, such as a cable channel with cover (installed across the footway) and a swinging overhead arm. Each has their own issues for example the shallow depth of a cable channel and the exposure to the public of the cable trailing from an overhead arm. See Appendix B.

It is anticipated that any installation of a cable channel in the footway if approved at a future date, would be undertaken by a private company under licence, and would not be maintainable at public expense.

Any solutions to convey a cable safely and appropriately from a property across an adopted footway would not resolve all the issues however. Many homes within the County Borough are terraced houses or multi occupancy tenement buildings which do not have access to off-street parking, and parking directly outside a specific property cannot be guaranteed. Even where there is a Residents' Parking Scheme, such schemes only increases the probability of being able to park in an area, not in a specific place. If on-street charging were to be approved it would likely highlight parking issues for those residents looking to park outside their property in order to charge a vehicle. It would also likely increase the demand for residents parking type schemes. If specific parking spaces were made available to individual properties, it would remove parking opportunities from others. Overall, the situation could potentially result in neighbourhood disputes between residents looking to access specific locations for vehicle charging. In any case, it could be expected that cables, having suitably traversed the footway would then be found trailing in the channel line of the road, in any water, alongside the kerb to the vehicle.

If on-street charging were allowed in certain circumstances it would seem sensible that a permit/licence system was in place to make it clear what obligations and liabilities sat with the homeowner. At present there is no such system in place which would likely require significant administration as battery electric vehicle usage increase. A licence system, for example, could though include a requirement to fit a suitable Residual Current Detection device at the start of the charging cable. Also, where licences are granted, these could be added to the Council's GIS records for public lighting infrastructure as a means of making the information available to statutory undertakers planning works. It is suggested a typical licence might look something like Appendix C.

The majority of EV models on sale today have the potential to cover distances of 120-300 miles on a full charge and this is set to potentially

increase as technology evolves. Assuming homeowners buy vehicle which suit their typical needs, it might therefore reasonably be assumed that most EV owners would not necessary need to recharge their vehicles at home on a frequent basis, but use the vehicle in a similar way to an internal combustion engine car, only needing to charge (refuel) once a week or every few days using a public rapid charger, workplace, shopping/destination chargers, or local community charging hub, albeit the cost might not be as advantageous as overnight home charging tariffs. Taking account of all of the above, in terms of investment in its emerging Zero Emission Vehicle Infrastructure Strategy, this suggests the Council's focus should be on providing community charging hubs in areas without off-street parking.

At present there are a total of 11 x 50kW+ rapid chargers in the County Borough across 5 locations in Jersey Marine, Neath, Baglan Moors, Aberavon and Glynneath, along with 14 destination chargers in various locations ranging from 7-22kw showing as publically available on Zap Map. As the uptake of electric vehicles increases, the demand on the charging infrastructure will increase. As part of its strategies, the Council will need determine the extent of its role in providing workplace charging provision for employees and rolling out publically available charge points

Below is a chart which provides an indication of the charging time for vehicles depending on the type of charger used. It should be noted however that many existing vehicles are limited to 7kW or 11kW charging on AC depending on their on-board technology, and cannot take full advantage of 22kW AC charging.

Approximate miles of range added per charger type

2.3kW 3 pin plug	7kW AC Home Wallbox/Destination charger	22kW AC Destination charger	50kW DC Rapid charger	150kW DC Rapid charger
10 miles per hour	30 miles per hour	90 miles per hour	90 miles in 30 mins	200 miles in 30 mins

In summary, for the purpose of this report, the key issue is that with the proliferation of plug-in battery electric vehicles then, with or without a proliferation of public charging points throughout the County Borough, the demand for home on-street charging is likely to increase exponentially in due course. In such circumstance there would appear to be two ways forward:

- a) Continue with, and enforce, a ban regarding on-street charging involving trailing cables over adopted footways (accepting onstreet charging by connecting to designated supply 'bollards' etc. would be OK). Council's would then need to pursue in their local strategies an adequate coverage of community charging hubs and destination chargers.
- b) Introduce a permit system to allow on-street parking via home connection in suitable circumstances.

If the latter is pursued, it would seem there is a clear case for guidance from Welsh Government to ensure a consistent approach across Wales, include model guidance and a model licence (noting Welsh Government may need similar documentation for itself in relation to single carriageway Trunk Roads which pass through communities).

Taking account of the above, it is proposed to continue discussions with Welsh Government through Transport for Wales and the WLGA to seek model guidance and licence requirements for on-street home charging with respect to on-street charging requests from residents.

Financial Impacts:

No implications

Integrated Impact Assessment:

There is no requirement to undertake an Integrated Impact Assessment as there is no policy change associated with this report. The ongoing refusal of on-street charging requests by Councils in Wales, including Neath Port Talbot, is based on health and safety considerations and protecting the position of the Council as Highway Authority. It is assumed any policy change in the form of national guidance which aims to facilitate suitable on-street home charging would be subject to assessment at the time of drafting by Welsh Government.

Valleys Communities Impacts:

Charging issues surrounding home charging with respect to terraced housing etc. will impact on valleys communities as elsewhere. Indeed, the implications may be more acute in future where there are no public transport alternatives to the use of a car for example.

Workforce Impacts:

Employees who do not have off-street parking provision and alternative means of transport may well experience issues around onstreet parking, although the council has potential to mitigate this through workplace charging opportunities.

Legal Impacts:

Legal advice indicates liability for any incident involving a cable trailed over the footway without permission would lie with the property owner. However, if a licence system was to be introduced where permission is given by the council for cables to be trailed, the council may open itself to some level of risk of litigation as there is currently no existing case law for this scenario.

Risk Management Impacts:

Without a licence system in place, or adequate financially competitive local community charging hubs, un-regulated on-street charging is likely to occur and increase.

Consultation:

There is no requirement for external consultation on this item

Recommendations:

It is recommended that:

- a) The Council continue to decline requests for on-street home or business electric vehicle charging for the time being; and,
- b) Officers continue discussions with Welsh Government through Transport for Wales and the WLGA to seek model guidance and licence requirements for on-street home charging with respect to on-street charging requests from residents.

Reasons for Proposed Decision:

Given the legal implications for the Authority, the potential safety issues arising from trailing a cable across the highway, and the early stage trailing elsewhere of potentially innovative solutions, it is

recommended to continue with the existing moratorium and monitor the success or otherwise of the trials.

With the uptake of EV's which is likely to increase rapidly in the coming years, and the home charging issues arising from the historic housing and highway layouts throughout the country, national Welsh Government guidance is required to ensure a consistent approach between Councils and to steer future plans and policies.

Implementation of Decision:

The decision is proposed for implementation after the three day call in period

Appendices:

Appendix A – Highways Act Sections 162 & 178

Appendix B – Examples of on street charging from home

Appendix C – Example of what a model licence agreement might contain with respect to on-street home vehicle charging

List of Background Papers:

The Road to Zero – UK Government - [The Road to Zero \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk)

Electric vehicle Charging Strategy for Wales – Welsh government [Electric Vehicle Charging Strategy \(gov.wales\)](https://www.gov.wales)

Action Plan – Electric Vehicle Charging Strategy for Wales – Welsh Government - [Electric vehicle charging strategy for Wales: action plan \(gov.wales\)](https://www.gov.wales)

Zero Emission Vehicle (ZEV) Mandate -

<https://www.gov.uk/government/consultations/a-zero-emissionvehicle-zev-mandate-and-co2-emissions-regulation-for-new-carsand-vans-in-the-uk>

Officer Contact:

Paul Thomas, Senior Assistant - Highways

☎ 01639 686120

✉ p.thomas3@npt.gov.uk

Steve Owen, Highway & Drainage Services Manager

☎ 01639 686304

✉ s.owen@npt.gov.uk

Appendix A

Relevant Section of the Highways Act (Sections 162 & 178)

162 Penalty for placing rope etc. across highway.

A person who for any purpose places any rope, wire or other apparatus across a highway in such a manner as to be likely to cause danger to persons using the highway is, unless he proves that he had taken all necessary means to give adequate warning of the danger, guilty of an offence and liable to a fine not exceeding level 3 on the standard scale.

178 Restriction on placing rails, beams etc. over highways.

(1) No person shall fix or place any overhead beam, rail, pipe, cable, wire or other similar apparatus over, along or across a highway without the consent of the highway authority for the highway, and the highway authority may attach to their consent such reasonable terms and conditions as they think fit.

(2) Subject to subsection (3) below, a person aggrieved by the refusal of a consent under subsection (1) above, or by any terms or conditions attached to such a consent, may appeal to a magistrates' court.

(3) No appeal lies under subsection (2) above against any term or condition attached by the Minister to a consent given by him under this section if he declares the term or condition to be necessary for the purpose of securing the safety of persons using the highway to which the consent relates or of preventing interference with traffic on it.

(4) If a person contravenes subsection (1) above, or the terms or conditions of any consent given under that subsection, he is guilty of an offence and liable to a fine not exceeding level 1 on the standard scale; and if the offence is continued after conviction he is guilty of a further offence and liable to a fine not exceeding £1 for each day on which the offence is so continued.

(5) This section does not apply to any works or apparatus belonging to any statutory undertakers, and for this purpose the Civil Aviation Authority, a person who holds a licence under Chapter I of Part I of the Transport Act 2000 (to the extent that the person is carrying out activities authorised by the licence), and a universal service provider in connection with the provision of a universal

postal service and the operator of an electronic communications code network or a driver information network are to be deemed to be statutory undertakers.

Appendix B

Examples of on-street charging from home

Trailing cable



Cable protection mat



Cable channel



Swinging Overhead Arm



2. **The Licence**

- 2.1 This Agreement is made under section 178 of the Highways Act 1980.
- 2.2 In consideration of the Licence Fee and the provisions of this Agreement the Council gives the Licensee the right for the Licence Period to place the cable channel at the location specified at the Schedule to this Agreement being areas of highway maintainable at public expense for a period of _ years from the date of the agreement.

3. **Licensee's Undertakings**

The Licensee agrees and undertakes the following:

- 3.1 The Licensee must maintain the cable channel, keep it in a good state of repair and in a clean and tidy condition;
- 3.2 The Licensee must not use the cable channel for any purpose other than for charging an electric vehicle;
- 3.3 The Licensee must not use the cable channel in such a way as to cause a nuisance, damage, disturbance, annoyance, inconvenience, or interference to the adjoining or neighbouring property or the owners occupiers or users of any adjoining or neighbouring property;
- 3.4 The Licensee must indemnify the Council and keep the Council indemnified against all losses claims demands actions proceedings damages costs or expenses or other liability arising in any way from this Licence any breach of any of the Licensee's undertakings contained in clause 3 or the exercise or purported exercise of any of the rights given in clause 2; and
- 3.5 The Licensee must ensure the cable has a suitable Residual Current Detection (RCD) device included.

4. General

4.1 The rights granted in clause 2.1 are to determine – without prejudice to the Council's rights in respect of any breach of the undertakings contained in clause 3:

4.1.1 immediately on notice given by the Council at any time following any breach by the Licensee of its undertakings contained in clause 3; and/or

4.1.2 on not less than twenty eight (28) days advance notice in writing given by the Council or the Licensee to the other party

4.2 The benefit of this Licence is personal to the Licensee and not assignable and the rights given in clause 2 may only be exercised by the Licensee.

4.3 The Council may require the cable channel to be moved to an alternative area of highway maintainable at public expense:

4.3.1 and moved immediately by the Council without the Licensee's consent should the Council or any other body including but not limited to the police, fire service, ambulance service, statutory undertakers and telecommunications code system operators require access to the highway; or

4.3.2 if practicable, by giving not less than fourteen (14) days' notice in writing to the Licensee for the Licensee to move the cable channel to an alternative location approved by the Council in writing. Should the Licensee not comply with such notice the Council may move the cable channel in default.

4.3.3 For the avoidance of doubt the decision as to any alternative location will be at the discretion of the Council.

4.4 The Council is not to be liable for the death of or injury to the Licensee or for damage to any property of theirs or for any losses, claims, demands, actions, proceedings, damages, costs or expenses or other liability incurred by them in the exercise or purported exercise of the rights granted by clause 2.

5. Costs

5.1 Upon the execution of this Agreement the Licensee shall pay to the Council the total sum of [] pounds (£[]) being the combined amount of the Legal Costs and the Licence Fee

THE SCHEDULE

Location of cable channel

[]

The Plans

(Location Plan to be included here)

IN WITNESS whereof the Council has caused its Common Seal to be hereunto affixed and the Licensee has executed this deed the day and year first before written

THE COMMON SEAL of)
NEATH PORT TALBOT)
COUNTY BOROUGH COUNCIL)

was hereunto affixed in the) presence
of:)

Proper Officer

[

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