Screening Workshop Report

Regional Electric Vehicle Charging Infrastructure

This Screening Workshop Report is part of a series of pilot reports prepared following the completion of a Capital Investment Health Impact Assessment (CHIA) screening workshop.

The CHIA, developed by Glasgow City Region and Public Health Scotland, through the Health Foundation's Economies for Healthier Lives programme, is a toolkit to be used in the development and delivery of capital infrastructure projects that ensures that decisions made at every level – from design, to build and operate – focus on reducing health inequalities.

1 Background Information

The Glasgow City Region Electric Vehicle Charging Infrastructure (GCR EVCI) programme is a collaborative intervention, convened by Glasgow City Region PMO and including all local authorities in the City Region. It seeks to partner with a private operator to expand the public EV charging network across all eight local authorities in the City Region.

The programme, supported by Transport Scotland funding, will increase the number of charge points from approximately 600 to over 3,487 by 2026. The new charge points will be publicly accessible and will include a variety of charging speeds.

The programme will help to reduce carbon emissions, encourage wider uptake of Electric Vehicles, contributing to the achieving net zero emissions, in Scotland, by 2045.

The GCR EV collaboration is focused on ensuring that EVCI expansion supports and enables a just transition whilst establishing a comprehensive publicly accessible charging network across all eight regional Member Authorities.

The GCR EV collaboration is the largest grouping of local authorities in Scotland, encompassing a third of Scotland's population and including major transport routes across central Scotland and to the north and south of Scotland. Work undertaken through this collaboration will provide a substantial and nationally significant increase in EVCI that is available to the public.

The Health Foundation

GLASGOW CITY REGION

2 Workshop Summary

This is a report of a workshop held on 12th May 2025 to discuss the potential impacts on health and equity of the Regional EVCI Programme.

Participants included technical representatives from the eight local authorities, representative from the Communities Team within Glasgow City Council, EVCI programme leads, representatives from Public Health Scotland and NHS Greater Glasgow and Clyde.

They used a health and equity impact checklist in a facilitated discussion to identify how EVCI was likely to affect different populations and health determinants.

This report details **potential** impacts identified by workshop participants. Further evidence is needed to investigate these potential impacts identified and discussed in the workshop. The report includes:

- A summary of key points.
- Suggestions or recommendations made during the discussion to enhance the impacts.
- Research questions to explore and understand impacts.
- A detailed workshop discussion.

3 Summary of Key Points

The participants discussed key impacts of the proposed programme on different population groups and key determinants of health. The key impacts identified include:

a) Potential positive environmental impacts of reduced greenhouse gas emissions and improved air quality.

b) Potential positive impact of installation and maintenance of charging units on creation of fairly paid local jobs.

c) Potential negative impact of additional street furniture on those with limited mobility, visual impairments, the very young and the very old, increasing the risk of unintentional injuries.

d) Focus on locating charge points in areas with no driveways has potential to make EV ownership more viable to those in flatted properties. It is noted that the site selection process will ensure that network roll out is balanced across the region ensuring that all have access to EV charging.

e) Location of charge units, particularly off-street chargers, may negatively impact on safety (actual and perceived) of women, LGBTQ+, ethnic minorities and religious groups. If the sites are poorly lit and in areas of low through traffic, for example.

f) Potential positive or negative impact on some businesses, dependant on the location of chargers. This could support or restrict access to businesses and/or remove parking spaces to allow people to access businesses.

g) Potential negative impact on non-EV drivers who experience the removal of parking spaces, particularly in areas where parking spaces are restricted/parking demand is high.

h) EV drivers will see a positive impact of additional and better-connected charging infrastructure.

i) Potential negative impact due to streets being used in different ways and attracting outsiders to local community, potentially leading to conflict and safety concerns.

j) Potential conflict between different groups, including neighbours, drivers/non-drivers, and EV drivers/non-EV drivers.

k) Potential difficulties for people with low numeracy and literacy skills to access and use the charge units.

l) Potential challenges associated with high cost of electricity to charge EV may impact cost of living and sustainable use of units.

m) Potential challenges associated with the location of charge points and balance between affluent and possibly more profitable areas and less affluent/lower levels of EV ownership being less profitable – there is a need to balance locations to future proof the network and ensure equitable distribution of risks and benefits.

4 Suggested Actions

In the discussion, the group suggested some actions to enhance the impacts of the GCR EV collaboration. These are summarised below:

- It is important to give communities an understanding and awareness of the roll out of new EV sites, and use the existing statutory processes including consultation, to facilitate this:
  - [**GCR Response:** *All charge points will be rolled out using statutory processes including required consultation by individual local authorities*].
- It is important to adopt a clear communications strategy and clear messaging about use of charging units and council vs CPO responsibilities:
  - [**GCR Response:** *The CPO will be required to adopt a clear communications strategy. Text will be included in the scope regarding communications*].

- It will be important to consider measures to make using and charging EV measures more affordable, including engaging with the Scottish Government about the cost of electricity for EV charging:
  - [**GCR Response:** *Commercial decisions around the tariff rates will be made by the CPO*].
- Robust TROs should be put in place at appropriate times to support people trying to park in EV Bays - taking a phased approach:
  - [**GCR Response:** *Noted*].
- It will also be important to link EV charge sites with other sustainable travel modes – including bike lanes etc. to allow ease of use and support connectivity:
  - [**GCR Response:** *Site selection has been based on proximity to sustainable/ active travel routes*].
- If advertising revenue is considered – it should encourage healthy behaviours and not promote harmful behaviour. It would be useful if this could include public health messaging:
  - [**GCR Response:** *This will be included in the scope*].
- Usability and accessibility of the EV chargers is key - the instructions should include graphical instructions rather than words; an onboarding process and a local single point of contact be created to support people to use the technology and become more confident doing so:
  - [**GCR Response:** *The need for an accessible EV chargers/ network will be included in the scope*].
- A central hub with multiple chargers would be useful to be sited nearest to health centres/ community centres as these have a mix of population types. Siting in these areas also deals with possible issues around security and accessibility, as these centres are usually well attended, open late/early, and can support access to good quality public services:
  - [**GCR Response:** *This collaboration only allows for EV charge points to be installed on council owned land*].

5 Research Questions

The group identified several questions about the impacts. These are listed below:

- What responsibility the CPO might bear/not bear in relation to vandalism and theft in the medium to longer term?
  - [**GCR Response:** *This matter will be addressed in the scope. This is a risk that would be transferred to the CPO*].

- What is the impact of siting charging units in areas of high crime? Will there be insurance or liability implications? Will these be less likely to be maintained in the longer term? Will there be a disproportionate impact on groups experiencing disadvantage – older people, disabled people, those living with material deprivation?

  - [**GCR Response:** *This matter will be addressed through robust KPIs. The cost of maintaining chargers in areas of low utilisation would be transferred to the CPO. KPIs will be put in place to ensure that these charge points are maintained/serviced in line with charge points in areas of high utilisation (i.e. they don't drop off the network) to ensure that the network expansion delivers a just transition*].

- How will certain groups be best supported to use the charging units? Particularly older people, those with low literacy and numeracy and disabilities?

  - [**GCR Response:** *It is interest of the CPO that EV charge points are accessible and this includes a robust Communication/ Engagement strategy. The need for an accessible network will be included in the scope*].

- How will new charging be distributed in each local area? Will units in areas of multiple deprivation and potentially less profitable be equally prioritised for maintenance, repairs and upgrades?

  - [**GCR Response:** *This matter will be addressed as part of the site selection process and through robust KPIs. The site selection process has been focused upon priorities, one of which is to deliver an equitable network – ensuring that charge points are sited in areas of low utilisation to support/ grow the network and allow all to access EV charging*].

- How will the new charging units impact on traffic in area? During the week? At weekends?

  - [**GCR Response:** *Individual local authorities will be expected to manage local traffic issues as they do with other similar interventions*].

- What is the level of latent demand for active travel and for public transport in the area?

- What is the evidence of the impact of new charging units on local businesses? Existing businesses? New businesses?

  - [**GCR Response:** *We would anticipate that the charge points would have a positive or neutral impact attracting customers to an area for a period of time. Potentially spending money on local business*].

- What elements of the new charging infrastructure have the most positive impact on businesses? And the community? Open/Green space?

  - [**GCR Response:** *This matter has been considered through site selection. The decision to site faster chargers in journey/destination sites to support quicker charging/turnaround. These chargers will be sited in existing car parks and therefore support access to business/commercial premises as well as community facilities and green spaces (parks, etc.)*].

- What is best practice in community engagement in the planning and delivery of EV charging infrastructure?
    - [**GCR Response:** *There are statutory practices that local authorities must take to consult via TRO and/or planning processes*].
- What are local businesses and residents' perceptions of the impacts of the new charging points/ units? What influences these perceptions?
    - [**GCR Response:** *Noted and agree that this would be an interesting future piece of work*].
- How does each local authority response and social marketing influence community responses and perceptions?
    - [**GCR Response:** *It would be useful to have some clarification on this point - local authority response to what?*].
- How many Motability scheme users/carers have access to EVs? Is this likely to change? How can it be supported?
    - [**GCR Response:** *As Motability is national scheme and operated at a national UK Government level this would be a question for UK Government*].
- We need to have a better understanding of technology. This is also a question for KPIs so that we don't have a situation where some assets are left behind or forgotten/fall off the network i.e. those that are less profitable and CPO in no hurry to repair?
    - [**GCR Response:** *Covered in points above. The matter will be addressed through a robust set of KPIS to govern the quality of the delivery*].

6 Detailed Discussion

The group identified that the EVCI programme was most likely to affect the following groups of people:

Positive Impacts

- EV drivers are likely to be impacted positively by an expanded charging network, particularly those living in flatted properties or without access to a driveway may benefit from more easily accessible, potentially more affordable charging points.
- Local residents and businesses, particularly individuals living with ill health, including respiratory disease, likely to benefit from improved air quality.

Both Positive and Negative Impacts

- **Businesses** may also be negatively impacted by **reduction in parking spaces** affecting accessibility for both staff and costumers or positively impacted by increased visitors in the area.

Negative Impacts

- **Non-EV drivers** may be negatively affected by reduction or perceived reduction of parking spaces locally.
- **Non drivers** – younger and older people who rely on walking and public transport more may be negatively affected by increased traffic in the area.
- **Pedestrians**, particularly those with **reduced mobility**, may be negatively impacted by additional street furniture or clutter on pavements and footways.
- **Residents** near the charging units may experience disruption with additional vehicles traveling to the area.
- Increased traffic may increase risk of RTAs – increased **risks for children and people who have visual or hearing impairments** as EVs are relatively silent when compared with vehicles with internal combustion engines.

6.1 Impacts by Population Group

The group discussed the populations on the checklist as follows:

Age

- Older people who drive are more likely to find the transition from internal combustion engine to EV more difficult and less likely to find the charging technology easy to use and accessible, as EV charging technology is often reliant on apps and an assumption in relation to a level of understanding of technology. However, driving an EV can usually be easier than a combustion engine. Given support through disability car schemes, such as Motability, this population group could possibly make the transition more easily and sooner.
- Older people who drive and rely on Motability schemes may require additional support mechanisms to access/ purchase affordable electric vehicles.
- Older people may be more likely to find the heavy charging cables and digital infrastructure difficult to use/inaccessible.
- Older people are often more likely to rely on public transport and have reduced mobility, they may be negatively impacted any additional street furniture on pavements and footways. They may also find increased traffic in their area challenging or frightening –leading to potential safety concerns – perceived or otherwise.
- Young people may struggle to afford a new EV until they become mainstream, and so potentially be excluded or benefit less from the programme.

- Young children or other pedestrians may be unable to hear the more silent EVs and this can present a risk of increased Road Traffic Accidents (RTAs).
- Potential benefits of reduced noise pollution from increased EV use for all ages, particularly the very young and very old.

Sex/Gender

- Location of the charging units and security measures implemented by individual local authorities may impact on women's safety or perceived safety while charging their vehicle or in the event that they are stranded if a unit is faulty – for example, if they are located in a more secluded area, with insufficient lighting and/or without CCTV.
- Women tend to take on more caring responsibilities and do more driving of children or older family members in need of care or support – this may result on differential impact of charging units on them. Locations near other transport modes, health centres and schools would all be beneficial. Some thought may also need to be given to the type of chargers in locations women are most likely to use and existing facilities around them.

Pregnancy/Maternity

- Pregnant women and women traveling with small children may experience difficulties accessing and using the charging infrastructure, particularly handling heavy or cumbersome cables.
- This issue of the length and weight of cables may be more related to the individual EV itself than the charging units, it would be beneficial to consider accessibility and ease of use of equipment to provide greater benefits/reduce accessibility risks that they can present.
- There may be safety issues associated with remote or secluded locations, insufficient lighting, limited proximity to essential services.

Disabilities

- There may be accessibility risks associated with increased street furniture, particularly relevant for on street EV Charging units. Individuals with limited mobility and visual impairment may find the space difficult to navigate.
- There may be conflict between different groups and perceived reduction in accessible parking bays available if these are repurposed for charging units/ bays. This is potentially relevant for on and off-street parking.
- If EV charging bays are made accessible, including type of charging units, weight of cables, ease of payment and technology, the benefits will be maximised for all groups, including disability.
- There are potential positive impacts on disability car schemes, such as Motability, as they tend to use newer cars and can often be EV, and the expansion of the network can potentially enhance provision of charge network.

Sexual Orientation

- LGBTQ+ individuals tend to be worst affected by multiple deprivation, marginalisation and potentially experience economic difficulties which may exclude them from owning an EV directly from the charging infrastructure.
- LGBTQ+ individuals may also experience vulnerability and have safety concerns in poorly lit and secluded locations.

Married or Civil Partnerships

- No significant differential impacts in relation to marriage or civil partnership.
- There may be a slight disadvantage for single individuals, if living in a single income household, with the costs of charging an EV affecting them, potentially, more significantly than dual or multiple income households.

Race

- Minority ethnic groups are more likely to experience socio economic disadvantage, poverty and face discrimination. They may face barriers of access to a vehicle or electric vehicles, due to having to prioritise other spend, therefore not always the most direct beneficiaries of the charging units.
- Minority ethnic groups using the charging units and whose first language isn't English may have difficulties accessing and using the infrastructure. They may benefit from information in alternative language or images rather than words.

Religion

- Some religious groups may experience same safety concerns as previously identified for previous groups.
- Some religious groups may benefit from EV charging points near places of worship.

Low Income, No Wealth

- There are likely to be tensions between those who can and can't afford EV or even a vehicle. It may be important to adopt sensitive messaging around this.
- Siting chargers in areas of low wealth will lead to those chargers being used by drivers external to that community, potentially increasing movement and disruption with no obvious direct benefit to local community.
- Equally not siting chargers in these areas my exacerbate issues of distribution in the future, when EVs potentially become more accessible.

Area Deprivation

- Conflict between 'haves' and 'have nots' - potential for theft (e.g. cables), vandalism and damage of equipment.
- Maintenance and upgrading of EV Charging points in areas of low income may be an issue, if they are not as profitable as other locations. Important to consider this when finalising KPIs and keep in mind potential for a two-tier system of charges.
- People in these may potentially be locked into paying higher cost for overnight charges if lower access to off street charging.
- Important to achieve balance between sites with high demand and profitable lower usage and lower SIMD data zones – process currently considering this. Issues of who will have responsibility for certain aspects in areas where vandalism is frequent.

Other Population Groups

- Homelessness
    - Vulnerable groups unlikely to have access to EV but may have safety concerns when in the vicinity of charging locations. There may be conflict between EV drivers and other groups using the space. For example, if EV drivers are perceived as having privileged access to a space which may have previously been used a regular parking space or which limits the amount of space individuals with a physical disability have to move around.
- Refugees
    - Many don't have English as a first language, and may be unlikely to have access to EV. For those who do, language would be a barrier and the instruction of use for units may have to reflect this. Refugees share the same safety concerns as other vulnerable groups.
- Social Isolation
    - May be useful to understand where charging infrastructure users go, who they are, when they drive their cars and where they go to help site the chargers near facilities or services to facilitate.
    - Additional EV chargers may help with connectivity for EV users and facilitate travel to visit and connect with friends and family.
- Victims of Crime
    - Safety concerns, similar to some of the other population groups, perceived and actual, potentially leading to anxiety and fear of using charging spaces.

- Care experienced children and adults
  - There is a higher likelihood that this population group face more barriers in education, employment and are, therefore, more likely to be in groups of lower economic status or socio-economic disadvantage, potentially being excluded from direct benefit relating to the charge points.
- Students
  - Potentially less likely to own a vehicle, but if they own one or have the use of one, could benefit for additional charge points near colleges and universities.
  - Cost of owning and charging an EV likely prohibitive to most students.
- Low literacy and numeracy
  - May have difficulty with using the charging units, app and payment system. It will be helpful to consider accessible manuals, apps with images and a local onboarding contact to help with instructions and demonstration. Some people are visual learners or find it easier to learn when watching someone else demonstrating.
  - May find it challenging to find or locate charging points and navigating complex network system.
  - There is some maths involved in calculating miles required for a given journey and amount of charge required for this. May be slightly challenging for some individuals who have low numeracy skills.
  - Important to be mindful of this when developing and rolling out messaging or communications for the programme.
- Workers and staff
  - There may be resource implications for local authorities, particularly earlier on as drivers may need more support to become familiar with technology and location, and also as residents may take time to adjust to new set out/additional traffic coming into their area.
  - Potential impact on businesses, placement of charging points that may take away a parking space for a non-EV or that would usually be used by workers or visitors. It will be important to ensure that, in locations with high numbers of staff with EVs, there is enough capacity to accommodate everyone and a fair booking system to avoid conflict.
  - Important to consider this when identifying final locations for EV charging points,finding a balance between residential areas and industrial estates which may see intensive use during weekdays day but lower at weekends and evenings.

- Leisure centres and community centres are included in the scope of the programme, but Health facilities are not included, as it covers mostly council owned sites such as leisure centres. It would be useful for NHS if they're expanding also. Fleet vehicles in facilities included in the scope of the programme will potentially benefit from a discounted charge rate. There is potential to link with other agencies to support wider roll out however it is not appropriate to add into this project due to timescale restrictions.
- New charging units near local businesses may benefit them as people may visit/use them while their vehicle is charging.

• Rural Communities

- More remote locations may make it challenging for EV drivers to have a reasonable network of charging units.
- Particularly for those in rural areas without access to a driveway it may be challenging and potentially more costly to charge their vehicle.
- For those with a driveway, the cost of installing a charger may be prohibitive.
- They may suffer disproportionately from range anxiety and isolation as a result of not being able to access charging points at a reasonable distance.
- Rural areas may benefit from enhanced connectivity, but negative impacts of increased traffic may be a risk for come communities. Important to consider a well-balanced split between rural/ potentially less profitable and urban/potentially more profitable charge locations across region.
- The units will likely be more profitable and better used than in rural area because of higher usage/population density, but there is potential for negative impact of increased traffic and noise disruption to local residents.

6.2 Health Determinants

The group then discussed the health determinants on the checklist as follows:

Economic Environment

There is potential for community benefits such as apprenticeships and work placements, through engagement with local education institutions.

Potential to create and facilitate access to new jobs with fair wages in the installation, but also in the medium to long term during operation, such as manufacturing of parts and maintenance of units.

Working at a Regional scale can help leverage additional benefits for individual local authorities in terms of training, fair work and wealth circulation opportunities.

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Income and Wealth Inequality

Costs of charging EVs using the public network likely to be more costly than using a diesel car.

A social tariff would potentially be beneficial but would require government intervention.
E.g. electricity at a commercial rate – not domestic will be minimum 40p kwh – 35p going to electricity costs – other side 5% vat and commercial rate 20% vat. Preferential/Variable tariffs will be explored as part of the procurement process.

Wealth Circulation - Community Benefits

Potentially would benefit local retail and encourage people to use the high street more if charge points are located nearby/ facilitate this use.

The Regional scale of the project may support wider benefits, particularly community benefits for all local authorities.

Income Security and Debt

There may be a negative impact on users who may have debt (uncollected) and will be asked to pay a large amount upfront when the transfer of charge units to the private operator is complete.

Cost of Living

Electricity cost may potentially be a challenge for some of the drivers/ users of charge points.

Ownership of Assets

Assets are mostly owned by local councils to minimise risk and potential liability issues, but community organisations may have own land in some instances. There is the opportunity for co-location of activities and services. This would be relevant to future expansion opportunities but is not relevant for this current procurement and would be for the owners of the land to progress.

Economic Environment

It is important to engage early and meaningfully with local communities to raise awareness of opportunities and risks, securing buy-in and minimising the risk of conflict between EV users and local residents or businesses.

Public Sector Equality Duty

A conflict between different groups was acknowledged. There is potential for engagement, and a fair and equitable approach to be adopted in order to minimise risks. For example, potential conflict between disabled EV drivers versus disabled non-EV drivers about parking capacity and accessibility, as well perceived preferential treatment of one group to the disadvantage of another one.

Place and Physical Environment

- Potential positive benefits associated with reduced noise pollution from increased use of EVs. But potentially negative impact associated noise of increased charging activity/traffic in the local area.
- Potential positive benefits from improved air quality for local residents.
- Potential positive impacts of greenhouse gas reductions at the point of use.
- Potential for increased climate resilience, with the procurement related sustainability test referencing the need for CPOs to consider flood risk and reduction measures in the design/ installation of charge points.
- Potential negative impacts of perceived reduction in parking spaces for non-EV drivers.
- Potential noise and travel disruption during installation phase.
- Risk of fly tipping, graffiti and vandalism would bring issues of liability and responsibility between local council remit and private operator remit. Importance of clarity when communicating with local residents and users of charging units.
- Potential for increased risk of unintentional injuries from using the equipment, trying to navigate street furniture and or increased traffic resulting in RTAs.

Access and Quality of Services

Siting charge units near or at leisure or sports centres, community centres, libraries and local amenities may support access to local services.

Commercial and Environmental Influences on Physical and Mental Health

Charging units located in car parks near leisure and sports facilities may have the potential to increase or facilitated its use.

Interaction of EV use with active travel and other sustainable transport modes may facilitate healthier travel choices and behaviours. Transport hierarchy was included in the site selection criteria.

If the charging units have provisions in place for advertising, there is the potential risk of these being used to promote harmful such as gambling and excessive alcohol consumption. It will be important to ensure that the space is used for public health messages or to promote healthier and more sustainable behaviours, similar to bus stops.

7 Workshop Participants

- Amy Sharpe, Renfrewshire Council
- Andrew Hall, East Dunbartonshire Council
- Antonia Abbot, Glasgow City Council
- Elaine Nicol, North Lanarkshire Council
- Gordon Blair, Jacobs
- Gordon McCready, Inverclyde Council
- Grace Murphy, Glasgow City Region
- Graeme Hill, Jacobs
- Jonathan Plant, South Lanarkshire Council
- Julie Robertson, Glasgow City Region
- Paul Kilby, Glasgow City Region
- Richard Hughes, East Renfrewshire Council
- Sharon Currie, Public Health Scotland
- Sonia Milne, Glasgow City Region
- Stewart Phillips, Glasgow City Council
- Zofia MacFarlane, NHS Greater Glasgow and Clyde