Case Study

Regional Electric Vehicle Charging Infrastructure

Part of a series of case studies and pilot reports, this document sets out the process of completing the Capital Investment Health Impact Assessment (CHIA) for the Electric Vehicle Charging Infrastructure programme led by Glasgow City Region. It includes details on the process of completing the CHIA, as well as the impacts identified and outcomes from the CHIA 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.

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Date the CHIA screening workshop was undertaken: 12 May 2025

1 Background Information

The Glasgow City Region (GCR) Electric Vehicle Charging Infrastructure (EVCI) programme is a collaborative project, convened by Glasgow City Region Programme Management Office. It seeks to appoint a private sector charge point operator to expand the public electric vehicle charging network across all eight local authorities in the city region.

The programme, supported by Transport Scotland Electric Vehicle Infrastructure Fund funding, will increase the number of charge points from approximately 600 to over 3,500 by 2030. The new charge points will be publicly accessible and will include a variety of charging speeds.

The programme will help to reduce carbon emissions and encourage wider uptake of Electric Vehicles, contributing to the achieving net zero emissions, in Scotland. Whilst the contract will cover a 20-year period, the new charge points will be installed across a five-year deployment period.

The GCR Electric Vehicle (EV) collaboration has prioritised the need for the EVCI expansion to support and enable a just transition whilst establishing a comprehensive publicly accessible charging network across all eight Regional Member Authorities. Work undertaken through this collaboration will provide a substantial and nationally significant increase in EVCI that is currently available to the public.

The CHIA screening workshop was undertaken in conjunction with members of the EVCI technical officers' group with a view to identifying key health and equity impacts of the proposed approach, informing the delivery of the programme and supporting a review of the Equality Impact Assessment.

2 Overview: a brief overview of the process followed in undertaking the CHIA

The EVCI project team undertook a CHIA screening workshop online, using Microsoft® Teams. Workshop participants included technical officers leading on EV Charging Infrastructure network in each of the eight local authorities in the City Region, as well as representatives from corporate policy/ equality impact assessment, community planning and health improvement.

Prior to the session, participants were issued a project summary, CHIA screening checklist and proposed agenda.

The session was facilitated by GCR PMO colleagues. The Regional Partnership Manager provided an overview of the proposed programme and the Health Improvement Manager at NHS Greater Glasgow and Clyde provided an overview of public health challenges and priorities across the two health board areas covering the city region.

During the session, participants worked through the checklist systematically, highlighting potential key impacts of the proposals on different population groups and key determinants of health, making some recommendations for action to minimise key risks and maximise potential opportunities.

This resulted in a workshop report setting out key impacts and recommended action. The project team then reviewed the impacts and recommendations made, committing to informing the next stages of project development and local authority approaches to site selection of their own local authority EV charging infrastructure.

The findings and impacts generated at the workshop will be embedded in the programme Equality Impact Assessment (EqIA) and detailed in the procurement specification.

3 Positive and Negative Impacts Identified

The key impacts identified include the following:

- Potential positive environmental impacts of reduced greenhouse gas emissions and improved air quality.
- Potential positive impact of installation and maintenance of charging units on creation of fairly paid local jobs.
- 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.
- 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.
- 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.
- Potential positive or negative impact on some businesses, dependant on the location of chargers. This could support or restrict access to business and/or remove parking spaces to allow people to access businesses.
- Potential negative impact on non-EV drivers who experience removal of parking spaces, particularly in areas where parking spaces are restricted/parking demand is high.
- EV drivers will see a positive impact of additional and better-connected charging infrastructure.
- Potential negative impact due to streets being used in different ways and attracting outsiders to local community, potentially leading to conflict and safety concerns.
- Potential conflict between different groups, including neighbours, drivers/non-drivers, and EV drivers/non-EV drivers.
- Potential difficulties for people with low numeracy and literacy skills to access and use the charge units.
- Potential challenges associated with high cost of electricity to charge EV may impact cost of living and sustainable use of units.
- 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 the locations to future proof the network and ensure equitable distribution of risks and benefits.

4 Recommended Actions

The workshop report included the following recommended actions:

- 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.
- It is important to adopt a clear communications strategy and clear messaging about use of charging units and council vs Charge Point Operator (CPO) responsibilities.
- Robust Traffic Regulation Orders (TROs) should be put in place to support people trying to park in EV Bays – taking a phased approach.
- It will be important to link EV charge sites with other sustainable travel modes – including bike lanes etc., to allow ease of use and support connectivity.
- 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.
- 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.
- 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.

5 What worked well?

Areas of the CHIA process or outcomes which worked well, were very straightforward, positive, or had good results include:

- Having a wide range of stakeholders together in the same virtual room, who may not have gathered otherwise, presented a useful opportunity to hear different perspectives on health and equity.
- In addition to this, it was helpful to have representation and input from a public health professional to help frame the discussion and raise awareness of key issues in the Region.
- Embedding impacts within the revised EqIA.
- Finally, it was helpful that the project was at the stage of procuring the delivery partner for the EV charging infrastructure, and so the discussion could inform those next stages of delivery at a Regional level as well as potentially inform the approach individual local authorities take to their own area – particularly around siting of charge points.

6 What challenges were experienced?

Aspects of the CHIA process which didn't work as well as expected or which created barriers to achieving the desired outcome include:

- The technical officers' remit or background was varied.
- Not all participants had a background in health and/or equity and some equated health to healthcare provision and access rather than a broader perspective around the determinants of health.

7 Key Learning

The following key learning was identified as helpful to support other teams aiming to undertake the CHIA process and experience:

- An in-person screening workshop may have been more valuable than an online one, but despite hosting online, there was still active participation.
- It may have been useful, resource permitting for the NHS/Health improvement overview to have included a more tailored focus upon EV or transport planning more broadly.
- It may have been useful to have a longer session to allow more time to explore recommendations and additional evidence/research questions.

8 Outcomes and Impact

- The workshop report's recommendations will feed into the EqIA, as well as informing the procurement specification of the EV charging infrastructure project.
- The session helped to strengthen relationships between GCR, NHS and individual Local Authorities.
- The session helped raise awareness and understanding of health among technical officers usually involved in transport planning projects.