



Equality Impact Assessment

EIA-643804045 - Electric Vehicle Charging Infrastructure Strategy

Details

Title	Electric Vehicle Charging Infrastructure Strategy
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Context and background

EIA carried out on	New policy or strategy
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To accommodate the future transition from petrol and diesel to electric vehicles (EVs), the UK Government has published the 'UK Electric Vehicle Infrastructure Strategy', which can be found here: <https://www.gov.uk/government/publications/uk-electric-vehicle-infrastructure-strategy>. As part of the national strategy, Government have mandated each local Council to produce an Electric Vehicle Charging Infrastructure (EVCI) Strategy.

Coventry City Council published its Transport Strategy in December 2022, which outlines the Council's plans to deliver a safe, sustainable, equitable and resilient transport system, which enables our residents, visitors and businesses to thrive. The Transport Strategy includes a range of measures for different transport modes, including bus, cycling, walking to reduce car use and the transition of vehicles to zero-emission. The section on zero-emission vehicles outlines that we will expand the city's charging network, but that specific detail would be included in a separate EVCI Strategy.

Background

This EVCI Strategy will sit underneath the Transport Strategy, and pulls together many existing workstreams and Council policies, in addition to setting out projections for the future of the chargepoint network in Coventry, and how we will meet the targets.

The CCC EVCI Strategy will cover the following areas:

- Policy background – national, regional and local
- The roadmaps to EV transition
- The current status of the EV transition, including current vehicle emissions, car and light commercial vehicle registration data, current levels of EV charging infrastructure and the electricity grid capacity
- Future projections, including how many EV chargepoints will be needed in future years
- Potential benefits including reductions in emissions and savings from mitigated damages
- The Strategy, including approaches to different types of charging and proposed policies
- How we will deliver the strategy, including an implementation plan

This Equality Impact Assessment is being carried out on the new EVCI Strategy.

Stakeholders

Coventry City Council – Transport and Innovation Service area
E.ON – Strategic Energy Partner to Coventry City Council

Responsibility

Officers within the Policy and Innovation Service area working on chargepoint installations with implement the findings of this Equality Impact Assessment.

Consideration of impact

Baseline data and information

Over 46% of properties in Coventry don't have off-street parking facilities and are therefore disadvantaged when it comes to being able to charge electric vehicles at their home. The government acknowledged this, and the Office for Zero Emission Vehicles has made funding available to local authorities to provide on-street charging facilities on these streets.

Like many towns and cities, Coventry can have poor air quality. Nitrogen dioxide is a particular concern for Coventry, resulting in a city-wide Air Quality Management Area to be put in place in 2009. The map attached (2022) shows the location of the diffusion tubes that monitor levels of nitrogen dioxide, with the red dots showing the sensors that are at or above the legal limit of $\mu\text{g}/\text{m}^3$. The yellow dots show areas where the nitrogen dioxide is lower than the legal limit, but is still higher than desired. A reduction in the number of petrol and diesel vehicles in Coventry will result in lower carbon dioxide and nitrogen dioxide emissions.

Air pollution is not distributed evenly across the city, so it can disproportionately impact some communities, especially those in more deprived areas of Coventry. There is also data suggesting that deprived areas experience a reduced healthy life expectancy and increased deaths from respiratory disease. Air pollution is an inequality issue and addressing it will add more benefit in more deprived communities.

The average life expectancy for men in Coventry is 78, with a healthy life expectancy of 61. The average life expectancy for women in Coventry is 82, with a healthy life expectancy of 64. Both life expectancies and healthy life expectancies vary across the city depending on the level of deprivation.

An improvement in air quality will improve public health outcomes, and result in better life expectancy.

Protected groups

Age 0-18

Positive impact - This group will be positively impacted by this strategy:

- By increasing the usage of electric vehicles, this will allow this group to have a cleaner environment with fewer pollutants, enjoy outdoor space and be able to enjoy a healthier lifestyle.
- Electric cars have no tailpipe emissions, therefore there is a reduction in carbon dioxide and nitrogen oxides. Children who are exposed to high levels of air pollution may be at greater risk of developing health conditions later in life.

Age 19-64

Positive impact - This group will be positively impacted by this strategy:

- Increased number of electric vehicle chargepoints
- The installation of electric on-street chargepoints will allow a space to charge their car near to where they live. This should in turn increase the usage of electric cars.
- Electric cars have no tailpipe emissions, although they do still emit particulate matter from tyre and brake wear.
- By increasing the usage of electric vehicles, this will allow this group to have a cleaner environment with fewer pollutants, enjoy outdoor space and be able to enjoy a healthier lifestyle.
- Electric vehicles are cheaper to run than petrol and diesel vehicles, and will save money.

Age 65+

Positive impact - This group will be positively impacted by this strategy:

- Increased number of electric vehicle charge points.
- The installation of electric on-street charge points will allow a space to charge their car near to where they live. This should in turn increase the usage of electric cars.
- Electric cars have no tailpipe emissions, although they do still emit particulate matter from tyre and brake wear.
- By increasing the usage of electric vehicles, this will allow this group to have a cleaner environment with fewer pollutants, enjoy outdoor space and be able to enjoy a healthier lifestyle.
- Electric vehicles are cheaper to run than petrol and diesel vehicles, and will save money.

Disability

Both positive and negative impacts - This group could be positively impacted by this strategy:

- Electric cars have no tailpipe emissions, although they do still emit particulate matter from tyre and brake wear.
- By increasing the usage of electric vehicles, this will allow this group to have a cleaner environment with fewer pollutants, enjoy outdoor space and be able to enjoy a healthier lifestyle.
- Most electric cars are automatic, which can improve the driving experience for those who may struggle to change gears
- PAS 1899 was published in 2022 to provide best practice on ensuring that chargepoint installations are accessible for all drivers. CCC will look to follow all best practice guidance and encourages all private chargepoint installers to do the same.
- By installing more chargepoints, there is a greater chance of them being located closer to their properties making it easier to travel between chargepoint and home.

This group could be negatively impacted by this strategy:

- For chargepoints installed on residential roads, people with mobility issues may struggle to walk a longer distance back to their property
- For chargepoints in regular sized on-street parking bays, wheelchairs users could struggle to navigate to the chargepoint if there are kerbs or other cars parked in the neighbouring spaces.

Gender reassignment

No impact -

Marriage and civil partnership

No impact -

Pregnancy and maternity

Positive impact - This group will be positively impacted by this strategy:

- By increasing the usage of electric vehicles, this will allow this group to have a cleaner environment with fewer pollutants, enjoy outdoor space and be able to enjoy a healthier lifestyle.
- Electric cars have no tailpipe emissions, therefore there is a reduction in carbon dioxide and nitrogen oxides. Children who are exposed to high levels of air pollution may be at greater risk of developing health conditions later in life.

Race

No impact -

Religion and belief

No impact -

Sex

No impact -

Sexual orientation

No impact -

How HI will be reduced

The EVCI Strategy has a wide evidence base, and includes maps that highlight focus areas for the rollout of public EV chargepoints. This includes a measure of where individuals may wish to adopt an EV but are unlikely to have off-street parking to install a home chargepoint. This ensures that everyone will have equitable access to chargepoints for electric vehicles.

The Strategy also includes information about current and projected pollutant levels. Nitrogen dioxide is a particular concern for Coventry, resulting in an Air Quality Management Area to be put in place in 2009. Since then, nitrogen dioxide levels have decreased but there is still scope to decrease these further. The increase in proportion of electric vehicles in Coventry could further reduce nitrogen dioxide levels, along with a reduction in carbon dioxide. However, electric vehicles do still emit particulate matter from brake and tyre wear. This is mitigated against by the objectives and schemes within the Transport Strategy, which aims to reduce overall car use which would reduce the number of vehicle miles driven.

Air pollution is not distributed evenly across the city, so it can disproportionately impact some communities. This is an inequality issue and addressing it will add more benefit in more deprived communities. An improvement in air quality will improve public health outcomes, and better life expectancy.

This strategy covers the following Marmot Principles:

- Ensure healthy standard of living for all by enabling all Coventry residents to have equal opportunities to access digital technologies in a way that helps them in their daily lives.
- Create and develop healthy and sustainable places and communities by mitigating against the exposure of communities to pollutants
- Pursue environmental sustainability and health equity by implementing a transport system that minimises pollution and an energy transition that minimises air pollution from all sources

There is data within the EVCI Strategy that projects the number and proportion of cars and light commercial vehicles in Coventry that will be electric by 2030, 2035 and 2040. This then predicts the number of chargepoints that will be required to accommodate this need. Using this data, we are able to predict the emissions savings and the costs saved as a result of mitigated damages.

Between 2030 and 2040, the following amount of pollutants will be saved:

- 166,117 tonnes of CO₂
- 315.9 tonnes of NO_x
- 4.8 tonnes of PM_{2.5} (from tailpipe)
- 2.3 tonnes of PM_{2.5} (from brake and tyre wear)

**Evidence showing
how HI will be
reduced**

A reduction in vehicle emissions will result in social and financial cost savings. This is due to a reduction in air quality related illnesses resulting in NHS savings, or avoided costs associated with meeting carbon reduction targets. The EVCI strategy sets out the cumulative savings per pollutant, but an extract has been included below for context. By 2030:

- £6,938,245 of CO₂e saved
- £50,845 of NO_x saved
- £4,761 of PM_{2.5} (exhaust) saved
- £876,079 of PM_{2.5} (brake and tyre wear) saved

In addition, by continuing to install chargepoints across Coventry, this is improving equity as it increases the chance for people without a driveway to get an electric vehicle and be able to recharge it easier.

The barriers to purchasing or leasing an EV will reduce when the costs decrease and there are more second hand EVs on the market.

Groups of people who face HI

Areas of deprivation face significant health inequalities for air pollution as it is not evenly distributed across the city.

People with disabilities could face inequalities when using the chargepoints. This is if the residential chargepoints are located further from their property than where they'd usually park, resulting in a longer distance to travel back to their property.

The EV strategy details the taxi licensing requirements, which details how the Council will only grant taxi licenses to zero emission capable vehicles, including both battery electric and hybrid vehicles. This applies to Hackney carriage licences along with private hire licenses. This could exacerbate inequalities if drivers are unable to purchase a zero emission capable vehicle.

There could also be a safety risk to people, especially women, using the chargepoints when it is dark, especially if there is insufficient lighting. This is more prevalent for charging hubs in off-street car parks, as on-street chargers are well lit by existing streetlights.

How to improve HI for groups identified

The conversion of petrol and diesel vehicles to electric will have a positive impact, as there are no tailpipe emissions. This will improve health outcomes for areas of deprivation, as well as the entire city.

The number of chargepoints will increase across the city, so that there are many available in close proximity to all properties. This will reduce the distance that people with disabilities will have to travel back to their property when parking their vehicle.

In order to mitigate against inequalities for taxi drivers, there was a phased introduction of the new standards (which were first publicised in 2019 before fully coming into effect in January 2024). The Council also previously offered a 'try before you buy' scheme for some electric vehicles, including taxis. This scheme has now concluded, but allowed taxi drivers to test electric vehicles before committing to purchasing one.

In order to mitigate against any safety risks, additional street lighting columns will be installed where necessary for off-street charging hubs.

Digital inequalities (DI)

Impact to DI

Lower powered chargepoints in residential areas do not have contactless card payment technology. This is an industry standard across the UK as it is not feasible or cost effective to add this technology to low powered and smaller chargepoint units.

Therefore, chargepoint users must use a smartphone in order to scan the QR code, or enter the website link, and download the app for the payment portal. Users can then connect their bank card or deposit an amount onto their profile that can then be used for charging sessions.

This means that users need both a smartphone and bank card to recharge their vehicles using the lower powered chargepoints.

Opportunities to reduce DI

The chargepoint operators for the lower powered chargepoints have guidance for using their chargepoints on their websites, in addition to a customer service helpline, so if people are struggling to use the chargepoints then they are able to call them for support.

In addition to the lower powered chargepoints, Coventry City Council have also installed a network of rapid charging points that have contactless bank card technology. These rapid chargepoints recharge the vehicle faster, and no accounts or web access is required.

Next steps

Inequality	Action	Owner	Timescale
Disability	Look to install wireless charging bays in on-street disabled parking bays in Coventry City Centre to improve accessibility	Shamala Gadgil	2024/25
All	Continue the rollout of public electric vehicle charging infrastructure to increase availability and reduce inequalities in accessing chargepoints	Shamala Gadgil	Ongoing

Monitor and evaluation

We will monitor the usage of the chargepoints and also keep a record of any comments we receive from members of the public.

Impact on Council staff

**Will there be an
impact?** No

Completion statement

**Potential equality
impact** Both positive and negative impact has been identified for one or more protected groups