



East Riding of Yorkshire Council
**Local Transport Plan
Strategy**
2021 – 2039

Appendix E
Public Electric Vehicle
Infrastructure Strategy



I Introduction

- 1.1 The UK's Climate Change Act 2008 sets out a long-term strategy for the UK's reduction of carbon dioxide (CO₂) emissions. The government subsequently set out its plan of action for greenhouse gas reduction in the Carbon Plan in December 2011. The plan identifies that transport has a critical role in meeting the Climate Change Act obligations.
- 1.2 In 2011 the government published 'Making the Connection: the Plugged-In Vehicle Infrastructure Strategy'. At the time of this strategy, the government envisaged most Electric Vehicles (EVs) being recharged overnight, at homes or in vehicle depots. If such an approach was successful, this would have the benefit of balancing the demand for electricity across the day, increasing the energy savings offered by the uptake of EVs, while creating minimal infrastructure cost. Charging at work would be a second option for drivers. The strategy highlighted 'range anxiety', the concern about running out of battery charge while making a journey, as one of the key barriers to the uptake of EVs; a small number of public charge points were envisaged, primarily as top-up locations, preferably offered and funded privately.
- 1.3 In 2013, the government published 'Driving the future today: a strategy for ultra-low emission vehicles in the UK', in which it said that its vision was for almost every car and van in the UK to be an ultra-low emission vehicle by 2050, with the UK at the forefront of their design, development and manufacture. In this the government pledged to work with partners to achieve the switch to ultra-low emission vehicles, including expanding the provision of vehicle charging facilities beyond that proposed in 2011.
- 1.4 In 2017 the government announced that the sale of all new diesel or petrol powered cars would be prohibited from 2040, subsequently brought forward to 2035.
- 1.5 Drivers are increasingly shifting towards vehicles which run on an alternative fuel source as a more environmentally sustainable and often cheaper mode of transport. To encourage the use of zero emission vehicles successive governments have provided some financial support for those purchasing EVs and this has led to a growing move towards this power source.
- 1.6 Local authorities have a role to play in supporting the shift towards EVs, and East Riding of Yorkshire Council is committed to providing local residents and businesses in the area with a variety of options in terms of the way they choose to travel. To support this, this dedicated Public EV Infrastructure Strategy has now been developed, which forms part of the Council's Local Transport Plan (LTP) Strategy (2021-2039).

2 Background

- 2.1 Air pollution is associated with a number of adverse health impacts and is recognised as a contributory factor in the onset of various conditions, including heart disease and cancer. Poor air quality particularly affects the most vulnerable in society, for example children and older people, and those with existing heart and lung conditions. Often pollution displays a strong correlation with indices of deprivation, with areas experiencing poor air quality frequently being among the less affluent.
- 2.2 Recent years have seen a welcome reduction in overall levels of air pollution in the UK but for some pollutants, particularly those linked with transport emissions, the rate of reduction has stalled. Although individual vehicles are now much less polluting, traffic growth has partially offset any improvement.

- 2.3 Evidence for the association between air pollution and a wide range of adverse health effects in the general population is undeniable; Public Health England (PHE) estimates 5.3% of all mortalities may be linked to long-term exposure to air pollution.
- 2.4 The principal air pollutants from petrol and diesel engine emissions are carbon monoxide, oxides of nitrogen, un-burnt hydrocarbons and particulate matter. Road transport contributes around 25% of man-made carbon dioxide emissions and is the largest contributor of nitrogen dioxide and PM₁₀ (airborne particulates associated mainly with older diesel engines and brakes and tyre wear).
- 2.5 Detailed information on the contribution of cars to air pollution is provided by the Department for Transport via their [Vehicle Certification Agency](#) website.
- 2.6 Despite overall reductions, in recent years local air quality has become a significant issue with increasing concern over links to early mortality and poor health in the worst affected areas. The World Health Organisation (WHO) has published a useful [factsheet](#) summarising research. To clarify the results, the WHO provides the following statement: “Air pollution is a major environmental risk to health. By reducing air pollution levels, countries can reduce the burden of disease from stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma.”
- 2.7 As with all local authorities, East Riding of Yorkshire Council has a key role in achieving public health improvement through the reduction of harmful emissions. The Environment Act 1995 places a Local Air Quality Management duty upon the Council and this is coordinated by the Public Protection Division who produce an Air Quality Annual Status Report.
- 2.8 Supporting low carbon travel, including EVs, contributes to one of the Council’s five corporate priorities, ‘Valuing Our Environment’ and several of the LTP’s overarching objectives. This also supports East Riding Local Plan Strategy Document policy S8 ‘Connecting People and Places’.
- 2.9 Where a local authority identifies areas of non-compliance with the air quality objectives and there is relevant public exposure, they have a statutory duty to declare the geographic extent of non-compliance as an Air Quality Management Area (AQMA) and to draw up an action plan detailing remedial measures to address the problem. To date it has not been necessary for East Riding of Yorkshire Council to declare any AQMAs, although some monitoring locations alongside the A63 have indicated elevated levels of nitrogen dioxide, which continue to be monitored.
- 2.10 In addition to impact on human health directly, vehicle emissions, particularly carbon dioxide, contribute to climate change and a reduction and eventual removal will assist efforts to mitigate warming of the atmosphere.
- 2.11 In use, EVs produce zero exhaust emissions and provide the potential to reduce direct pollution from road transport, although they still contribute to particulate pollution. Their actual impact does depend on the source of electricity generation used to charge the vehicle but with the increasing use of renewable energy this becomes less of an issue.
- 2.12 Currently the operational range of EVs is perceived as a serious restriction on their sale and use, with the best vehicles managing around 300 miles on a full charge. It is therefore important to support charging infrastructure to provide confidence in this mode.

National Coverage



- 2.13 There are four main EV charging types: Slow (up to 3kW) which is best suited for 6-8 hours overnight; Fast (7-22kW) which can fully recharge some EVs in 3-4 hours; and Rapid AC and DC (43+kW) which are able to provide an 80% charge in around 30 minutes for those vehicles which can accept it. Newer Ultra Rapid chargers are now being installed with outputs greatly in excess of current Rapid chargers which can deliver a significant charge in as little as 15 minutes.
- 2.14 There are several businesses and organisations providing information on charging locations and types of charger available, for example the [Zap Map](#) or Plugshare websites.

Government Financial Support for EVs

- 2.15 Government support for electric cars and vehicles is currently provided through the plug-in vehicle grants towards the purchase of vehicles, and the Electric Vehicle Homecharge Scheme to assist with costs of installation of a home-charger. Other grant schemes also exist for the installation of on-street residential chargepoints and the Workplace Charging Scheme.
- 2.16 In the March 2020 Budget the government indicated an extra £532million in consumer incentives for ultra-low emission vehicles, including £400 million for the Plug-In-Car Grant.

3 Aim

- 3.1 The aim of this strategy is:

The Council will support and encourage the use of EVs by installing a basic network of charging points across the East Riding.

4 Progress to Date

- 4.1 Through the Local Transport Plan, the On-street Residential Charge Point Scheme and other grants and development funding, the Council has installed publicly accessible electric vehicle (EV) charging points at a growing number of locations. For details see the Council's website or the Zap Map site.
- 4.2 These complement other charging facilities available to the public in the East Riding operated by private organisations, such as Flemingate in Beverley. Some vehicle manufacturers such as Nissan and Tesla have also installed public charging points, although in certain circumstances these are restricted to the owners of those vehicles.
- 4.3 These locations are included on a national map of charging points and have filled what was a significant gap in provision in the east coast area of the UK.

- 4.4 The Council's EV charging points are currently managed by Pod Point and are on the Pod Point Open Charge network.
- 4.5 The charging points have a type 2 Mennekes socket with a single phase 7kw 32A AC supply. The EV and charging cable should be compatible with this connection type and supply. Each Pod Point can charge two vehicles at the same time.

5 Consultation

- 5.1 The LTP Strategy was subject to a formal eight week consultation in autumn and winter 2020. In developing this Strategy the following stakeholders were consulted:
- Traffic and Parking team, who manage EV charging points in Council car parks;
 - Planning officers responsible for assessing new applications;
 - Public Protection, Environmental Control Section;
 - The Highway Asset Management team; and
 - The Council's relevant portfolio holders.

6 Plans for the Future

- 6.1 As petrol and diesel powered vehicles are progressively phased out, demand for EV charging points should grow. With many of the East Riding's visitor attractions relying on day visits from northern cities, it is important to provide confidence that EV users will be able to charge their vehicles if necessary, encouraging clean journeys into and around the area.
- 6.2 Through the LTP Implementation Plan, the Council proposes to install additional charging points to complete a basic geographical network of facilities. The Council does not have the resources to create and manage wider provision and we look to government and the private sector to develop a more comprehensive network.
- 6.3 Additional EV charging points are likely to be based in the settlements identified through the settlement network in the Local Plan Strategy and located in Council operated car parks. These schemes will be subject to the LTP Implementation Plan Appraisal Process.
- 6.4 The use of new points will be closely monitored to determine demand and the potential for additional facilities to be installed in the future.
- 6.5 On-street charging points have been considered but logistical and technical issues would make this difficult to achieve effectively and installation will not be pursued at present. This position will be monitored.
- 6.6 As local planning authority, the Council has a role in encouraging and, where appropriate, requiring new developments to provide EV charging facilities. National planning policy requires development to be sustainable and developers should look to provide facilities for the projected growth in EV use. This is especially true of retail and commercial developments.
- 6.7 The government has said that it would consider making the provision of EV charging points mandatory for new residential development and required at conventional petrol stations. Detailed guidance is awaited.

7 Addressing our Transport Priorities and Achieving the LTP Objectives

7.1 In the LTP the Council has identified a number of key transport challenges and priorities which must be addressed in order to achieve the five LTP objectives. Although the Public EV Infrastructure Strategy will help to address a number of these priorities and subsequently contribute towards the delivery of a number of objectives it will primarily address the priorities set out under objectives 2 and 3, as follows:

- **Objective 2:** Support sustainable economic growth and regeneration by promoting trips by non-polluting vehicles.
- **Objective 3:** Reduce carbon emissions by encouraging the replacement of polluting vehicles by zero emission EVs.