

Report of the Strategic Director of Corporate Services to the meeting of Regeneration and Environment Overview & Scrutiny Committee to be held on 9 October 2019

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Subject:

Report on Bradford Councils work undertaken to date and future proposals to promoting electric vehicle (EV) uptake and increase the EV charging network within the Bradford district. *Note this will not be site specific regards the Taxi scheme.*

Summary statement:

Before 2019 Bradford Council had installed 3 public charge points and has programmed a further 20 due to be installed by March 2020. Also, officers have commenced converting CBMDC fleet to electric vehicles, 7 twin electric vehicle charge points have been installed at council sites for fleet use.

Strategic Director: Joanne Hyde

Report Contact: Kate Smallwood
Energy & Environment Officer
Phone: (01274) 433885
E-mail: kate.smallwood@bradford.gov.uk

Portfolio: Cllr Ferriby

**Overview & Scrutiny Area:
Regeneration & Environment**

1. SUMMARY

Before 2019 Bradford Council had installed 3 public charge points and has programmed a further 20 due to be installed by March 2020. Also, officers have commenced converting CBMDC fleet to electric vehicles, 7 twin electric vehicle charge points have been installed at council sites for fleet use. The report details the work so far undertaken to develop an electric vehicle charge point (EVCP) network.

2. BACKGROUND

2.1 National Strategy

Nationally the Government are encouraging the take up of electric vehicles and the installation of charging infrastructure. The aim is to reduce air pollution and greenhouse gas emissions from our transport to improve the health of citizens and limit our effect on climate change.

In July 2018 the Government published the “Road to Zero” detailing the next steps towards cleaner road transport and delivering the Industrial Strategy. The strategy outline aims to put the UK at the forefront of the design and manufacturing of zero emission vehicles, and for all new cars and vans to be effectively zero emission by 2040 ending the sale of new conventional petrol and diesel cars and vans by 2040.

The Road to Zero builds on the Clean Growth Strategy published in October 2017 to shift to Low Carbon Transport, delivering clean growth through increased economic growth whilst decreased our greenhouse emissions.

As part of the above the Office for Low Emission Vehicles (OLEV) is funding a range of measures and incentives to encourage the uptake of electric vehicles.

2.12 Local Strategy

Within West Yorkshire and Bradford there are a number of strategies where electric vehicle will form part of the solution for meeting objectives.

- West Yorkshire Low Emission Strategy 2016-2021
<https://www.bradford.gov.uk/media/3590/west-yorkshire-low-emissions-strategy.pdf>
- Leeds City Region Energy Strategy
<https://www.westyorks-ca.gov.uk/media/2424/leeds-city-region-energy-strategy.pdf>
- Bradford Councils Climate Change Framework for Action
<https://www.bradford.gov.uk/environment/climate-change/climate-change-framework-for-action/>

2.13 Climate Emergency

Bradford Council passed a motion in January 2019 to declare a climate emergency and commit to a green economy; this was followed with the West Yorkshire Combined Authority also formally declaring a climate emergency and called for urgent collaborative action to tackle emissions in June 2019. All West Yorkshire Councils have now declared climate emergencies and Leeds City Region aims to become UK’s first zero carbon city region.

2.14 Air Quality Plan

The Bradford Air Quality Plan is being developed in line with Ministerial Direction to improve air quality in particular achieving compliance with the EU Limit Value for nitrogen dioxide (NO₂) in the shortest possible timeframe. Electric vehicle emit zero tailpipe emissions and will be an important element of the measures needed to improve air quality.

2.2 EV Charging Infrastructure

In 2014 Bradford Council installed its first public electric vehicle charging points (EVCP) through OLEV public sector funding, since then we have installed a number of charging points for both public and our own fleet to use, these have been funded via various schemes such as ULEV (Ultra Low Emission Vehicles) Readiness Scheme, Local Transport funding and OLEV grants.

There a number of different types of EVCPs the main types are:

	SLOW	FAST	RAPID
Power Rating	3-7 kW	7-22kW	Over 43kW
Electric Supply	AC	AC	AC and /or DC
Typical Charge Time	6-12 hours	2-4 Hours	25-60 minutes to reach 80% charge

2.21 Bradford Council Public Charging Points

Until recently Bradford Council have been operating just three public charging points, below gives a summary of their usage.

Location	Charger Type	Time Period	Number of uses	Energy Usage kWh	CO2 Saving (kg)
Ian Clough Hall, Baildon	7.2kw Fast	4.Sept 2014 – 6.Sept 2019	325	2208.3	1848.26
Scott Street, Keighley	3.6 kW Slow	4.Sept 2014 – 6.Sept 2019	227	1536.4	1285.97
Crown Court, Bradford	50kW Rapid	1.Aug 2017 – 6.Sept 2019	414	3038.4	2529.5
		TOTAL	966	6783.1	5663.73

Between 1st Jan – 31st August 2019, the above EV charge points between them have been used 240 times equating to approximate 1 use per day.



Crown Court Rapid Charger



Ian Clough Hall Fast Charger

2.22 ULEV Tax Infrastructure Scheme

The West Yorkshire Combined Authority (WYCA) was granted £1.98m from the Office of Low Emission Vehicles (OLEV) in 2017 for the delivery of the ULEV Tax Infrastructure Scheme. Match funding of £1.2m has also been allocated from the Local Transport Plan.

The scheme will provide a network of 88 rapid EVCPs across West Yorkshire, each having two parking bays one for public use and the other for use of hackney & private hire taxis. Of the 88 install the scheme aims to see 20 of rapid EVCPs installed within the Bradford District.

Installations have commenced with the first two being installed in the Bradford District, the remaining 18 will be installed by March 2020.

Engie were awarded the contract to install, own and operate the charge points on behalf of the West Yorkshire councils for a 10 year period. The charge points will be powered by 100% renewable energy and will be free to use until Oct 2021. By providing the infrastructure and initial free period it is hoped this will act as an incentive for drivers to convert to electric vehicles.

The EVCP locations will be advertised on ev.engie.co.uk interactive map, EV drivers are also able to use this website to create an account to use the new network.

WYCA are aiming for a good geographic spread of the new charge points

The first two locations to go live in the Bradford district are:

- Vicar Lane, Bradford, BD1 5AH
- Saville Car Park, Crowgill Road, Shipley, BD18 3SX



Vicar Lane, Bradford

2.23 Technical Planning Guidance

As part of the West Yorkshire Low Emissions Strategy, Technical Planning Guidance was introduced <https://www.bradford.gov.uk/media/3591/air-quality-and-emissions-planning-guide.pdf>

The guidance set out those new developments should have the following EVCP requirements:

Residential:

1 charging point per unit (dwelling with dedicated parking) or 1 charging point per 10 spaces (unallocated parking).

Commercial/Retail:

10% of parking spaces which may be phased with 5% initial provision and the remainder at an agreed trigger level.

Industrial:

10% of parking spaces which may be phased with 5% initial provision and the remainder at an agreed trigger level.

The Planning Guidance will ensure all new council buildings will have EVCPs installed, as a result of this the new extra care site, Keighley (old Bronte school site) due to be opened late 2019 had a planning requirement to install three fast charging points, recently 1x twin 7kW and 1x single 7kW EVCP have recently been installed, as this is a council site these will be managed by Bradford Council and form part of our public charging network. The EVCPs will be operational and available to the public once the site is fully completed.



Keighley Extra Care Site

2.3 Fleet Charging Infrastructure

Seven twin fast chargers (14 sockets) are available for the councils own electric fleet.

Location	Charger Type	Date Installed
Jacobs Well	7kW Fast	2014
Shearbridge Depot	7kW Fast	2015
Shearbridge Depot	7kW Fast	2019
Wakefield Road Depot	7kW Fast	2015
Harris Street	7kW Fast	2016
Stockbridge Depot	7kW Fast	2016
Margaret McMillan Tower	7kW Fast	2016

Currently on our fleet we have 10 plug in vehicles, of which 8 are 100% electric plus 1 plug in hybrid and 1 electric off-road vehicle. In order to increase the number of fleet vehicles converting to electric, Fleet management have a Transport Operations (Air Quality)*, Procurement and Fuels Policy 2017/18 this states that:

“The Vehicle Advisory Group will investigate viable alternative fuels and work with departments who are procuring, hiring or using vehicles to establish formal evidence of:

1. Consideration of using Ultra Low Emissions Vehicles (ULEV) or Very Low Emissions vehicles (VLEV).
2. Exploration and trialling of any fuel-saving or emission reducing technologies.”

Alongside this departments should have documented consideration of the use of ULEV or VLEV vehicles as an alternative, discounting them only if they are found not to be practicable or the costs are deemed to be prohibitive in achieving compliance with lowering emissions.

**see Appendix for full document*

At the moment electric vehicle tend to be more expensive to purchase than traditional petrol & diesel vehicles, however whole life costs should be considered. 100% electric vehicles are designed to be as efficient as possible and generally have just three main components the charger, inverter and motor. This means there is less wear and tear with fewer moving parts being susceptible to damage. Reducing servicing and repair costs, alongside this the cost of electricity to power the vehicle is approximately a third of the cost. Due to the nature of the types of vehicle the council require such as refuse vehicles, large vans, sweepers etc. practically at the moment the only viable vehicles to convert to electric are the council fleet of cars and light goods vehicles (small vans).

Although the council currently has spare capacity to increase the electric fleet in terms of available sockets, a trial is commencing regards fleet plugging in at home. A number of services with cars and vans allow staff to take their vehicles home at night in order for employees to start work straight on site. Building services have recently order an electric van, the drivers home has been fitted with a charge point to allow the van to be charged up overnight, this reduces the burden of multiple charge points being required at our depots, home chargers tend to be cheaper to install and fitting them at homes may also act as an incentive for employees to consider switching their personal vehicle to electric too– the trial will monitor consumption and also help determine the correct process for reimbursing the electricity costs back to the employee. The 6 month trial will determine if fleet home charging is a cost effective way of increasing the EV fleet and effectively manage the number of EVCPs required at our sites.

2.4 Future EV Proposals.

In order to further roll out EV Charging infrastructure and increase the number of electric vehicles within the districts the following actions are being developed.

2.41 Officers Working Group

In May 2019 an internal officer working group was set up to support the districts environmental and sustainability agenda by implementing the rollout of electric vehicles and charging infrastructure both within the council and across the wider district. The group has been meeting monthly to discuss ideas and help shape the councils thinking on

electric vehicles, public charging infrastructure and strategic planning.

2.42 Bradford EV Strategy

An EV strategy is to be developed for the Bradford District to set out targets and actions for EV development across the council and wider district. The Officers Working Group will help shape this, alongside this the Energy Savings Trust have also offered free consultancy to assist in the development of the Strategy.

2.43 On-Street Charging

Bradford Council will investigate the opportunity for on-street charging this could be developed alongside the councils current Street lighting project to replace lantern to energy efficient LED lighting and replacement of street lighting columns. Technology exist to convert street lights to charging points, this could be suited to residential streets with no off street parking. These maybe possible where street lights are replaced and moved to the front of the kerbside; officers will work alongside the street lighting team to determine the feasibility of on-street charging being incorporated into street lighting.

There may also be the opportunity to further develop residential charging via OLEVs funding for residential on-street charging scheme, however this only provides 75% of capital costs and is currently time limited with delivery by March 2020 and should be supported by evidence of on street demand. To date Bradford Council has yet to apply for this funding, due to concentrating effort on the development of the West Yorkshire rapid charge point network. Should demand arise and timescale be extended there maybe scope to apply for this funding, possibly looking to install charge point on council land in residential areas.

2.44 Government Consultation

The government has currently got a consultation out on electric vehicle charging in residential & non-residential buildings. The consultation closes on 7 October 2019.

A summary of the proposals are below:

Policy position: Residential Buildings

The government proposes every new residential building with an associated car parking space to have a chargepoint. We propose this requirement applies to buildings undergoing a material change of use to create a dwelling.

The government proposes requiring every residential building undergoing major renovation with more than 10 car parking spaces to have cable routes for electric vehicle chargepoints in every car parking space.

Policy position: New Non-Residential Buildings

The government proposes every new non-residential building and every non-residential building undergoing a major renovation with more than 10 car parking spaces to have one chargepoint and cable routes for an electric vehicle chargepoint for one in five spaces.

Policy position: Existing Non-Residential Buildings

The government proposes a requirement of at least one chargepoint in existing non-residential buildings with more than 20 car parking spaces, applicable from 2025.

For the full government consultation documents see <https://www.gov.uk/government/consultations/electric-vehicle-chargepoints-in-residential-and-non-residential-buildings>.

Bradford Council will be responding to the consultation, depending the outcome of the consultation local planning policy may require updating and it may also require the council to install further EVCPs at our council sites with more than 20 car parking spaces.

3. OTHER CONSIDERATIONS

Not applicable in the context of this report

4. FINANCIAL & RESOURCE APPRAISAL

The projects have been funded by external funding to date. However it should be noted that there may be the need for funding to further develop the EVCP network in the district, particularly on-street charging. There are also resource limitations around available officer time.

5. RISK MANAGEMENT AND GOVERNANCE ISSUES

No significant risks arising out of the implementation of the proposals.

6. LEGAL APPRAISAL

Contracts and lease are in place between Engie and Bradford Council.

7. OTHER IMPLICATIONS

7.1 EQUALITY & DIVERSITY

Not applicable in the context of this report.

7.2 SUSTAINABILITY IMPLICATIONS

EVs contribute to reduced greenhouse gas emissions, lower sound pollution and improved air quality. The West Yorkshire Rapid Charge Point network will be powered using renewable energy supply.

7.3 GREENHOUSE GAS EMISSIONS IMPACTS

EVs contribute to reduced greenhouse gas emissions. The West Yorkshire Rapid Charge Point network will be powered using renewable energy supply.

7.4 COMMUNITY SAFETY IMPLICATIONS

Where possible, EVCPs will be installed in safe areas. Site area prioritised if they are well lit and covered by CCTV.

7.5 HUMAN RIGHTS ACT

Where possible, charge point bays will be disable accessible.

7.6 TRADE UNION

Not applicable in the context of this report.

7.7 WARD IMPLICATIONS

EVCPs will be installed district wide resulting in new public infrastructure within ward boundaries.

**7.8 AREA COMMITTEE ACTION PLAN IMPLICATIONS
(for reports to Area Committees only)**

Not applicable in the context of this report.

7.9 IMPLICATIONS FOR CORPORATE PARENTING

Not applicable in the context of this report.

7.10 ISSUES ARISING FROM PRIVACY IMPACT ASSESMENT

Not applicable in the context of this report.

8. NOT FOR PUBLICATION DOCUMENTS

None

9. OPTIONS

Not applicable in the context of this report

10. RECOMMENDATIONS

Recommended – For the committee to review the report and provide any relevant guidance.

11. APPENDICES

Transport Operations (Air Quality) Policy 2018/19 Procurement and Fuels

12. BACKGROUND DOCUMENTS

None

11. APPENDICES

Transport Operations (Air Quality) Policy 2018/19

Procurement and Fuels

Introduction

Man-made air pollution causes the equivalent of 40,000 early deaths in the UK every year and this equates to 222 early deaths in Bradford, with an associated health cost of £157m per annum. Health research in Bradford demonstrates that air pollution is also responsible for a number of concerning health effects such as the development of childhood asthma, low birth weights, cancer, stroke and heart attacks. More recently air pollution has been linked with reductions in the IQ of children in affected populations.

Information provided by the Department for Environment Food and Rural Affairs (Defra) in 2017 indicates that Bradford District is currently exceeding legal limits for the pollutant nitrogen dioxide and is predicted to continue to do so until 2021. Bradford currently sits marginally outside the requirement to implement compulsory standards for clean air by 2020 through the use of Clean Air Zones (CAZ). A CAZ is a geographical area where a vehicle owner is required to pay a charge if they are driving a vehicle that does not meet the particular standard for their vehicle in that zone. The classes set by government in the CAZ framework are as follows with the standards for diesel vehicles being Euro VI and petrol Euro IV:

Class A	Buses, coaches and taxis
Class B	“ “ plus HGVs
Class C	“ “ plus HGVs and LGVs
Class D	“ “ plus HGVs, LGVs and private vehicles

Measures are being put in place to reduce emissions in the district. These include:

- Acceleration of the uptake of low emission vehicles through access to infrastructure and the use of the West Yorkshire Low Emissions Strategy (WYLES) procurement guide and Ecostars scheme.
- Commercial fleets - Ecostars have been appointed as a fleet consultant to operate a Fleet Recognition scheme with a target to engage 60 local fleet operators (Note: Bradford Council is already a member of the Ecostars scheme and has gained a 4 (out of 5) star award).
- Fleet - Fleet procurement to include whole life costing. Cars and vans to be considered for Ultra Low Emissions Vehicles (ULEV) or very low emissions.
- Gas refuelling (Compressed Natural Gas) - refuelling infrastructure included in the Council's Depot Redevelopment Plan for use by LGVs.
- Minimum emission standards for buses across West Yorkshire.
- Development of WY low emission taxi licensing standards and support for the taxi industry to transition to LEV alternatives.

Transport Operations (Air Quality), Procurement and Fuels Policy 2017/18

The Vehicle Advisory Group (VAG), part of Fleet & Transport Services (FTS), is authorised by CMT as the Council's professional competent body on transport related matters. It is authorised to develop, introduce and manage corporate transport related strategies and policies to protect the Council. For the purpose of this policy the VAG is charged with supporting, monitoring and reporting that vehicles, including plant items where applicable, used by Bradford Council are:

1. Where procured - are procured using whole life costing comparisons and sustainability.
2. Where hired - are hired based on lowest emissions available suitable for the task required.
3. Where used - are used in the most fuel efficient manner achievable.

The VAG will investigate viable alternative fuels and work with departments who are procuring, hiring or using vehicles to establish formal evidence of:

3. Consideration of using Ultra Low Emissions Vehicles (ULEV) or Very Low Emissions vehicles (VLEV).
4. Exploration and trialling of any fuel-saving or emission reducing technologies.

Important: The above must be balanced against costs and where costs are deemed to be prohibitive in achieving compliance with lowering emissions it is to be raised to the appropriate Strategic Director for consideration.

Departments Must:

1. Use CAZ compliant vehicles by 2020 as a minimum.
2. In coordination with VAG, have documented consideration of the use of ULEV or VLEV vehicles as an alternative, discounting them only if they are found not to be practicable.
3. Give consideration to any proposed fuel or emission reduction technology which can be fitted pre or post vehicle production.
4. When using vehicles departments are to:
 - Use them effectively with accurate route planning in place in conjunction with GPS systems where fitted.
 - Ensure drivers are aware of Safe & Fuel Efficient Driving (SAFED) techniques.
 - Use GPS in cab monitoring information for driver education purposes to improve driving, reduce engine idling time and eradicate speeding.

Audits

The VAG will both audit (periodic and annual) and support departments to ensure they have plans in place to achieve the outcomes required by 2020