

## ENVIRONMENT OVERVIEW AND SCRUTINY COMMITTEE

<b>Date Of Meeting</b>	Tuesday 15 January 2019
<b>Report Subject</b>	Strategic Development of Electric Vehicles and Charging Infrastructure
<b>Cabinet Member</b>	Cabinet Member for Streetscene and Countryside
<b>Report Author</b>	Chief Officer (Streetscene and Transportation)
<b>Type Of Report</b>	Strategic

### EXECUTIVE SUMMARY

The environmental impacts of climate change, the rising cost of petrol and diesel, Government penalties and targets imposed for carbon emissions and the need to promote green travel, make environmental responsibility a priority for Flintshire.

There has been a significant increase in electric vehicle ownership over the last 5 years with many businesses and public sector organisations investing in electric vehicles and facilitating public electric vehicle charging networks. This is in response to Government policy as well as the wider drive to reduce carbon emissions, costs and develop sustainable travel.

Despite advancements in both national and regional policy, the installation of associated charging infrastructure has not kept pace with the rapid increase of electric vehicles now appearing on UK roads. It is therefore essential for the Council to engage with the new technologies in order to reduce the risk of public abandonment in terms of tourism, residential development and business growth.

It is clear therefore that the Council has a major role both in developing a strategy to facilitate the implementation of Electric Vehicle Charging Points and in providing opportunities for the introduction of appropriate and effective Charging Points at strategic locations throughout the County. The Council will achieve this by making locations available and by ensuring that the local electricity supply network is sufficient to accommodate the additional demand. This approach will ensure long term sustainability and provide the Council with some potential long terms financial benefits from local lease arrangements.

An approved strategy will allow the Council to bid for a funding stream made available by both the Welsh and national Governments to help local authorities to secure a network of electric vehicle charging points across the Country.

## RECOMMENDATIONS

1.	That Scrutiny supports that the proposals that the Council should act as an 'enabler' rather than a direct provider of electricity charging points and should therefore facilitate the upgrade of the existing electricity supply network at economically viable locations on the highway network and other key locations in the County.
2.	That Scrutiny supports the strategic locations identified across Flintshire's own asset portfolio which will require further work to prioritise bids to access any available Welsh Government or national funding to install the necessary electrical infrastructure for charging points at these locations.
3.	That the Council continue to aspire to achieve an "All Electric Fleet" of Service Vehicles in line with the advancement of battery technology.

## REPORT DETAILS

<b>1.00</b>	<b>EXPLAINING THE STRATEGIC DEVELOPMENT OF ELECTRIC VEHICLES AND CHARGING INFRASTRUCTURE</b>
1.01	In recent years there has been a significant increase in the demand for electric vehicles (EVs) in the UK, from 3,500 in 2013 to more than 130,000 in 2017. There has also been a marked increase in the number of pure-electric and plug-in hybrid models available in the UK. This, coupled with the Government's recent move to ban petrol and diesel cars by 2040 has further stimulated the uptake of electric cars.
1.02	To accommodate both existing and forecasted demands for electric vehicles and charging infrastructure, the Council has been working in collaboration with Welsh Government, Denbighshire County Council and Jacobs who were appointed to review the current position in the regions under Welsh Government's Smart Living Programme.
1.03	The aim of the project was to assess the current 'state of play' across both Council's in relation to electric vehicles and charging infrastructure and as a result, a series of recommendations and next steps were produced which have been included within Appendix 1 of this report for reference.
1.04	Flintshire County Council has also been successful in obtaining grant funding through Cadwyn Clwyd for a study to identify: <ul style="list-style-type: none"><li>• The most suitable locations for charging infrastructure installations;</li><li>• The associated costs and options for on-going operation at each location.</li><li>• The management and demand for charging points in rural areas.</li></ul> Completion of this study will further enable the development of an EV charging infrastructure strategy.
1.05	Despite advancements in both National and Regional policy, the installation of associated charging infrastructure has not kept pace with the rapid increase of electric vehicles now appearing on UK roads. This has, in many

	<p>cases, resulted in many EV owners having limited locations to charge their vehicles; however, this is anticipated to change drastically in the near future as vehicle manufacturers seek to develop electric vehicles in line with Government targets. It is therefore essential for the Council to engage with the new technologies in order to reduce the risk of public abandonment in terms of tourism, residential and business growth.</p>
1.06	<p>Whilst the move to an alternative source of energy is inevitable, one has to be mindful of the technological risks associated with this fast moving sector. When making a commitment to invest, Flintshire, along with other local authorities, will need to be aware of the prospect of being outpaced by key market players. The forecasted advancement in technology could result in the County being burdened with outdated / superseded infrastructure which could drastically hinder the Council's ability to compete within an increasingly competitive market. Consideration will also need to be given to ongoing maintenance costs of facilities which could also result in a future burden on the Council's budget.</p>
1.07	<p>The Council can mitigate the risk of impact on its finances, by adopting the role of an 'enabler', to facilitate the implementation of electric vehicle charging points, rather than assuming the role of a direct provider. This approach would allow the Council to enter long term lease agreement with specific suppliers which would provide long term income potential.</p>
1.08	<p>This would involve the authority bidding for available Welsh Government funding in order to upgrade the existing electricity supply network at those sites for which have a proven business case. Sites may also be prioritised due to the potential to integrate ancillary energy facilities such as Solar PV (solar carports, solar arrays) and battery storage.</p>
1.09	<p>Although the geographic nature of Flintshire is primarily rural, it is essential that both urban and rural aspects of the County are considered when facilitating the growth of an EV charging network. Whereas the demand for charging infrastructure in urban areas will most likely stem from business and residential, demand in more rural areas may be focused upon locations that seek to attract tourism.</p>
1.10	<p>Whilst the outcome of the Cadwyn Clwyd Study has yet to be concluded, we can assume, with some confidence, that the locations for which are likely to be economically attractive will include the following;</p> <ul style="list-style-type: none"> <li>• Town Centres - Public Car Parks</li> <li>• Tourist/Visitor destinations – (for example; Talacre, Wepre &amp; Greenfield)</li> <li>• Leisure Centres</li> <li>• Council Offices</li> </ul> <p>Consideration should also be given to include the requirement of EV charging points within individual new developments in the County in order to further accelerate the uptake of electric vehicles.</p>
1.11	<p>Whilst the driving force of this report is to demonstrate the importance of sustainable connectivity across the County, it is also important to appreciate the potential for income generation in future via the lease of designated parking bays which could be offered to the private sector for take up.</p>

1.12	The Council currently operates a fleet of around 315 vehicles ranging from small vans to large service vehicles (such as Refuse Vehicles and Gritters). Whilst the Council aspires to achieve an “All Electric Fleet”, the battery technology currently available restricts the range of electric vehicles. Flintshire County Council will however continue work with its fleet supplier to monitor opportunities to integrate electric vehicles into its own Fleet in line with the advancement of battery technology.
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<b>2.00</b>	<b>RESOURCE IMPLICATIONS</b>
2.01	No resource implications identified at this stage.

<b>3.00</b>	<b>CONSULTATIONS REQUIRED / CARRIED OUT</b>
3.01	With Cabinet Member
3.02	With Environment Overview and Scrutiny – October 2018

<b>4.00</b>	<b>RISK MANAGEMENT</b>
4.01	Should Flintshire fail to facilitate public electric vehicle charging networks in line with the national vision, there is a great risk of public abandonment in terms of tourism, residential development and business growth.
4.02	Individual facilities would require planning consent

<b>5.00</b>	<b>APPENDICES</b>
5.01	Appendix 1: Jacobs ‘Demonstrator’ Project Recommendations.

<b>6.00</b>	<b>LIST OF ACCESSIBLE BACKGROUND DOCUMENTS</b>
6.01	<p><b>Electric Vehicles and Charging Infrastructure Parliamentary Briefing Note</b>  <a href="https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7480#fullreport">https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7480#fullreport</a></p> <p><b>Contact Officer:</b> Stephen O Jones  <b>Telephone:</b> 01352 704700  <b>E-mail:</b> <a href="mailto:stephen.o.jones@flintshire.gov.uk">stephen.o.jones@flintshire.gov.uk</a></p>

<b>7.00</b>	<b>GLOSSARY OF TERMS</b>
7.01	<p>EV – Electric Vehicle  Hybrid Vehicle – A vehicle which utilising both electricity and conventional</p>

	energy sources e.g. petrol or diesel
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