



NEATH PORT TALBOT COUNTY BOROUGH COUNCIL

Streetscene & Engineering Scrutiny Committee 22nd January 2021

Joint Report of the Head of Engineering & Transport (David W. Griffiths), the Head of Streetcare (Michael Roberts) and the Head of Property and Regeneration (Simon Brennan)

Matter for: Information

Ward Affected: All

NPT's Electric Vehicle Infrastructure, implementation plans and an overview of the wider strategy for public charging in the County Borough.

Purpose of the Report:

1. To inform Members of future Electrical Vehicle (E.V) Infrastructure at Local Authority sites to cater for the increasing number of E.V's within the Council's fleet. To further inform Members of the wider strategy being developed by NPT in conjunction with our regional partners.

Executive Summary:

2. Members will be aware of the concerns over global warming and the increasing need to reduce greenhouse gases along with national and local air quality issues. One of the ways to reduce carbon emissions is to replace fossil fuel vehicles with Ultra Low Emission Vehicles (ULEVS).
3. ULEVS are defined as vehicles that use low carbon technologies and emit less than 75g of CO₂/km from the tailpipe.
4. As the profile of the Council's fleet begins to move toward E.V's and in the future possibly Hydrogen for the larger vehicles, then so too does the method of fuelling the vehicles need to be updated. This

infrastructure needs to be suitable to service the expanding fleet at present, but must also be designed to enable its evolution over time to meet a rapidly changing technological environment associated with low emission vehicles.

5. Currently the Council has had two charging points in the Service Response Centre compound for a number of years. This enables four vehicles to be charged at any one time. However, with the increasing number of E.V's being procured for the Council fleet it was identified that further charging points would be needed to cater for the increase in demand.

Background:

6. The U.K Government's 2018 Road to Zero Strategy outlines how it will support the transition to zero emission road transport and reduce emissions from conventional vehicles during the transition. Since the Strategy was published the Government has increased its ambitions, by announcing plans to end the sale of petrol and diesel cars by 2030, and hybrids by 2035.
7. Correspondingly the Council has started to increase the number of E.V's on its fleet, currently this mainly comprises of cars and small vans, although there are aspirations to look at larger vehicles converting to ULEV going forward.
8. The Council currently has 9 Battery Electric Vehicles (BEV's) and up to a further 17 vehicles expected by 2024 albeit this number may grow on the back of ongoing national initiatives. Below is a chart which provides some idea of the charging time for vehicles depending on which charging units are installed.

Miles of range added per hour of charging				
3.7kW slow	7kW fast	22kW fast	43-50kW rapid	150kW rapid
Up to 15 miles	Up to 30 miles	Up to 90 miles	Up to 90 miles in 30 mins	Up to 200 miles in 30 mins

9. The previously installed charging points are 7kW which are suitable for current applications and are suitable for expansion in respect of smaller vehicles.
10. A further six 7kw charging points will need to be installed at The Quays increasing the capacity to charge sixteen vehicles at the site. There will also be a 50kw charging unit to allow for the charging of larger vehicles.
11. It is also planned to install an initial phase of charge points at Tregelles Court, Port Talbot Civic, and Tawe Terrace along with a point at Gnoll Country Park for vehicles used within the estate.
12. To future proof the capability of converting the fleet from fossil fuelled vehicles to E.V's, an area of land has been identified at The Quays which will allow for the further expansion of the charging capacity as the need arises. Appendix (a)
13. Given the need to maximise the green credentials of the vehicles, rather than relying upon the grid to power all of these vehicles, solutions are being considered to maximise the use of renewable energy generated at source to contribute towards powering these charging points. At The Quays site the option of installing solar panels which will further enhance the Council's green identity will be pursued. It is also an aspiration that the charging units at The Quays will be available to staff to encourage the wider uptake of E.V's. Furthermore, it is intended to explore the opportunity of opening the charging points for use by the public which can be operated on a cost recovery basis. This again will encourage behaviour change of the wider public towards low emission vehicles.
14. Cabinet has previously approved a feasibility study to explore the benefits of co-locating the waste collection fleet at the Transfer Station in Crymlyn Burrows, which will return to Members for consideration in due course. This work is also looking at the possibilities for E.V. charging at the waste Transfer Station for future waste collection vehicles given the connection to the national grid which exists on site associated with the former Energy from Waste facility.
15. Council officers are also working with the Welsh Government Energy Service (WGES) working group. The aim is to help Councils meet the WG's stated objective of all public sector road transport transitioning to ULEV by 2030 and support the move to Net Zero.

16. The support covers all aspects of road transport operated by the Council including (but not restricted to):
- Heavy Commercial Vehicles including Refuse Collection Vehicles, Recycling Collection Vehicles, Gritters and Tippers over 3.5 tonnes.
 - Welfare Minibuses (wheelchair access vehicles - typically four to six tonnes).
 - Minibuses (not WAV) - often used by schools and community centres.
 - Light Commercial Vehicles - vans - from less than 2 tonnes up to 3.5 tonnes, hire cars and pool cars.
 - Plant including street sweepers, mowers, and other specialist road-going equipment.
 - The grey fleet – staff owned vehicles reimbursed by a mileage payment scheme.
17. If appropriate the review will also consider the medium to longer term Electric Vehicle Charging Infrastructure (EVCI) needed at key sites such as principal offices and depots where vehicles may be parked overnight. This will evaluate the capacity at the sites, throughout the year, “headroom” for vehicle charging and the scale of upgrades needed to meet the anticipated charging needs of a fully electric fleet (based on the current fleet).

Outputs will include:

- A Greenhouse Gas (GHG) footprint covering all road transport including grey fleet and plant.
- An energy use (MWh) assessment covering all road transport including grey fleet and plant
- A Fleet Profile covering all road vehicles including the grey fleet:
 - Age, carbon intensity (g/km), fuel type, Euro emission standard, Clean Air Zone compliance.
 - Consideration of alternative net zero fuels where electrification is not a viable option.
 - Whole life cost models covering the replacement of cars, LCVs and HCVs with ULEVs.
 - Estimated charging/refuelling requirement including site models for main offices and depots.

- Proposals for EVCI and for supporting photovoltaic and battery storage systems.
- Supporting business case where required for ULEV procurement.
- Suggestions for dealing with grey fleet mileage and transitioning it to ULEV vehicles.

18. In addition the Fleet Manager has been invited to sit on a WGES working group focused specific on waste and recycling vehicle transition to ULEV.

19. As part of the City Deal project work, in due course it is intended to engage a consultant to undertake a regional strategy for EV Charging, and as a part of that work have detailed work undertaken for Neath Port Talbot, in particular to identify gaps in the rapidly developing commercial sector provision that will need to be addressed.

20. In terms of the wider renewable energy agenda, the Council is about to formally submit its Strategic Outline Business case for one of our City Deal projects entitled 'Supporting Innovation and Low Carbon Growth'. This is effectively a programme of 7 projects which range from a Technology Centre, to an Air Quality monitoring project. One of the projects within this programme is the development of a Low Emission Vehicle Charging Strategy for the region. From this piece of work we will develop a Strategic plan specific to Neath Port Talbot.

The regional Plan proposes three areas of activity:

1. Strategy – to ensure a coordinated approach to decarbonise journeys in the Swansea Bay City Region, mapping current and pipeline activity across all sectors with an associated 'live' action plan – this would be a procured activity.
2. Coordinate funding opportunities from WG and UKG.
3. Develop a pilot in the Valleys area e.g. community charging hub, how to address on-street charging, link charging to renewables generation in the Valleys.

21. The development of this regional plan is reliant upon approval and release of City Deal funding.
22. The Strategy specific to Neath Port Talbot will reflect but also support the regional work. It aims to coordinate the development and implementation of a ULEV charging network in the county borough that meets the needs and demands of residents, businesses and visitors as is aligned to regional and national policy.
23. Whilst this work is under development it is proposed to cover the following:
 - Develop a ULEV Charging Infrastructure Strategy for the county borough that meets the demands of residents, businesses and visitors.
 - Creation of core charging nodes and hubs throughout the county borough that are complementary to other charging points located in neighbouring Authorities.
 - Data collection to inform policy, measure the effectiveness, uptake, behaviour, economic impact and electrical demand.
 - Comprehensive data analysis using data mining, clustering and Artificial Intelligence (AI) techniques to extract meaningful information from the dataset to inform future investment and policy
24. An action plan will be developed which will flow from this strategy and will enable the council to direct its resources where demand is needed and will also assist in us maximising access to funding opportunities.
25. It is acknowledged that many private companies have already started installing charging infrastructure on their sites, including supermarkets and hot food retailers to name but a few. Whilst this is likely to continue where the return on investment is either neutral or positive, it is clear that there will remain gaps in provision across

the region and within Neath Port Talbot. The aim of these strategies is to identify these potential gaps, map out funding opportunities, explore the use of green energy to maximise the sustainability of the energy source in addition to ensuring that low emission vehicles do not drain the grid and also identify opportunities to benefit community initiatives.

26. Due to the pressures experienced over the last year, there has been a delay in developing these strategies, but the council is in the process of commencing the procurement of a specialist to assist us with this work and ensure that we maximise the opportunities and benefits associated with low emission vehicles and in turn contribute towards achieving our DARE (Decarbonisation and Renewable Energy) strategy objectives.
27. On a final note a new community car scheme covering Neath East and Briton Ferry is set to become the first E.V community car scheme in the NPT area. F.A.N Community Alliance, is a charity based in Neath Port Talbot and has secured funding to develop an innovative community transport project that will be of benefit to residents of all ages in Neath East and Briton Ferry. This has been developed with the support of the Building Safe and Resilient Communities Programme. Also the existing Amman Valley car scheme is also exploring opportunities for introducing E.V's and charging infrastructure as a part of their scheme.

Financial Impacts:

28. A budget of £135k has been allocated for the initial civils and the purchase of the charging units at Council premises.
29. The Office of Low Emissions (OLEV) have a workplace grant which will enable the Council to claim a grant of £350 per socket once the charge points have been installed.

Integrated Impact Assessment:

30. There is no requirement to undertake an Integrated Impact Assessment as this report is for information purposes.

Valleys Communities Impacts:

31. No implications.

Workforce Impacts:

32. Members of the workforce in fleet are being trained in respect of maintaining ULEVs. Staff user awareness training will need to be introduced highlighting the various differences between conventional vehicles and ULEV's in respect of fuelling/charging and breakdowns etc.

Legal Impacts:

33. No implications.

Risk Management Impacts:

34. Failure to introduce ULEV vehicles and the associated infrastructure would mean the Council's Fleet would not align with W.G and Westminster's goals to reduce carbon emissions.

35. If the council moves to EV's for some services, e.g. waste collection, and if for some reason the vehicles are not charged overnight they will be out of service for the day leading to disruption to services. This risk will increase as the scale and breadth of use increases accepting some service areas are more critical than others.

Consultation:

36. There is no requirement for external consultation on this item.

Recommendations:

37. For information only

Reasons for Proposed Decision:

38. For Information only

Implementation of Decision:

39. For information only

Appendices:

40. Appendix (a) Map location of new Charging area

List of Background Papers

41. None

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Appendix (a)

