



CABINET - 30TH NOVEMBER 2022

SUBJECT: UPDATE ON DECARBONISATION OF FLEET VEHICLES AND RELATED POLICIES

REPORT BY: CORPORATE DIRECTOR – EDUCATION AND CORPORATE SERVICES

1. PURPOSE OF REPORT

- 1.1 To provide Cabinet with an update on the work to review the Council's vehicle fleet and the transition to ultra-low emission vehicles (ULEV).
- 1.2 To seek Cabinet approval to develop a policy for employees and visitors to be able to use the electric vehicle charging infrastructure for their own vehicles, at cost.
- 1.3 To seek Cabinet approval to implement the actions identified as the next steps to reduce carbon emissions from our fleet.

2. SUMMARY

- 2.1 Phase 1 involving installing three electric vehicle charging hubs is nearing completion. One hub at Tir y Berth and the one at Ty Penallta should be operational by mid-December 2022, and the third at Tir y Berth should be operational early in the new-year.
- 2.2 This infrastructure should provide the charging capacity for the majority of the Authority's small and medium-sized vans that are not taken home by employees overnight.
- 2.3 Work is underway to develop a trial project for home charging for vehicles taken home where the employee has off road parking suitable for the installation of a home charging unit.
- 2.4 Funding has been secured from the Cardiff Capital Region Challenge Fund to identify and develop solutions where vehicles are taken home, but no suitable off road parking is available at the employees home.
- 2.5 Priorities moving forward are for services to move to electric vehicles for their small and medium-sized vans as they come to the end of their leases.

- 2.6 Tackling the issues of how our larger vehicles transition to ultra-low emissions will then become the next key area to examine and to resolve.

3. RECOMMENDATIONS

- 3.1 That Cabinet notes the progress made to date as part of the fleet review and transition to ultra-low emission vehicles work
- 3.2 That Cabinet approves the principle that employees and visitors should be allowed to use the vehicle charging infrastructure for their personal vehicles, and for a policy to be developed to that effect.
- 3.3 That Cabinet approve the proposed actions set out in this report to continue the transition to ultra-low emission vehicles.

4. REASONS FOR THE RECOMMENDATIONS

- 4.1 To contribute to the Council's commitment to become net zero carbon by 2030.
- 4.2 To implement the actions set out in the approved Electric Vehicle Strategy and Action Plan and contribute to the overall Decarbonisation Strategy
- 4.3 To ensure that we make the most efficient use of our fleet and to ensure the transition to ULEVs
- 4.4 To promote the uptake of electric vehicles with our employees and visitors

5. THE REPORT

- 5.1 On 11th November 2020 Cabinet approved funding of £297,371 to install electric vehicle (EV) charging points at Tir y Berth, Tredomen House and Ty Penallta. It was anticipated that this infrastructure should allow up to 100 electric vehicles to be introduced into the Authority's fleet, depending on service area demand.

- 5.2 Additional funding was secured from Welsh Government to expand the provision of charging points at depots, leading to a redesign and expansion of the project. . The new design facilitates charging of all smaller vehicles that are parked at Ty Penallta or Tir Y berth (either overnight or through the day). It includes short-term hires and it is envisaged that the new infrastructure will be the primary point for charging these vehicles. This accounts for up to 150 smaller vehicles (small vans, medium vans, MPVs and minibuses) that are not taken home and will have access to this infrastructure.

Initial consultation regarding the Tredomen House site revealed the provision of a charging hub there would be problematic. Accessing the electricity supply used by the data centre would have presented risks to business continuity. Mitigating these risks would have proved challenging and, probably, costly. The availability of suitable parking areas where chargers could be installed was also an issue. Therefore, the provision at Ty Penallta and Tir y Berth was expanded instead.

- 5.3 The project now comprises of 14 double 7kW charge units at Ty Penallta, including specific provision for the Authority's electric meals on wheels vans and ovens. Seven double 7kW chargers at the old meals on wheels site at Tir y Berth, plus 2 x 50kW

rapid chargers and 4 x 7kW chargers at units B9 – B11 at Tir y Berth to provide charging facilities for vehicles for Caerphilly Homes.

- 5.4 The total cost of the works will be £436,700, leaving a balance of £163,300 which will be used to provide charging units at other depots and sites identified under phase 2 of the programme.
- 5.5 The project has proved to be a steep learning curve for the organisation and has required additional electrical supplies at 2 locations. Lead in times for work and materials has also been considerable. However all electrical feeds, cabling and necessary site works have now been completed at both Ty Penallta and the former meals on wheels site at Tir y Berth. The 7kW chargers will be installed at those sites on the 5th – 9th December 2022 enabling the Ty Penallta and the former meals on wheels sites to be operational before the end of the calendar year. There are issues with 3rd party land which needs to be resolved before the additional electrical feed can be installed by Western Power Distribution (WPD) for the B9-B11 hub. There is also a longer lead in time for the 50kW chargers but these should be delivered by the end of December 2022.
- 5.6 As of 30th September 2022, a total of 525 vehicles made up our fleet, a reduction of 95 vehicles from a high of 620 in the summer of 2020. The 525 comprises of 105 vehicles that we own, 99 vehicles on hire, and 321 vehicles on long term lease. The reduction in total numbers is largely due to the reduction in hire vehicles from around 200 in 2020 to 99 as of September 2022.
- 5.7 In February 2017, CCBC entered into a managed service contract with Specialist Fleet Services (SFS) to provide lease vehicles. We now lease a total of 321 vehicles from SFS. Between September 2017 and January 2018 some 187 vehicles were provided to CCBC on 5 year leases meaning that those arrangements are up for renewal between September 2022 and January 2023. It is these vehicles, as they come to the end of their lease periods, which are the focus of current efforts to transition to EVs. Of those 187 vehicles 73 are small vans and 75 are medium-sized vans. Discussions with SFS have indicated that lease agreements could be extended by a year or up to 2 years for some vehicles. Those discussions are ongoing as leases come to an end and new or interim arrangements are put in place.
- 5.8 Fleet Management are currently in the process of working with Procurement Services in completing a new separate agreement for short-term hires that will provide flexibility in the transition process. It should also be noted that the managed service contract is reaching its conclusion and various options for delivering the overall fleet service, including fleet procurement and maintenance, are currently being considered and will be presented to Cabinet shortly via a separate report
- 5.9 159 of our fleet vehicles are currently taken home by employees. These are all either small vans (74) or medium-sized vans (85). Two pieces of work are ongoing to identify the best solutions to these issues. Firstly a home charging trial is being developed whereby home charging units will be provided to a trial group of employees with off-road parking, suitable for the installation of a home charging unit. Discussions are ongoing with HR, service areas and the Trade Unions to agree the final details of the trial. Secondly Cardiff Capital Region (CCR) Challenge Fund support has been secured to appoint consultants to look at those vehicles where the operatives do not have off-road parking. The contract for this work should be signed imminently.

- 5.10 Should the home charging trial and the CCR funded study identify viable solutions to vehicles taken home by employees, this combined with the charging infrastructure set out in 5.3 will accommodate virtually all the small and medium-sized vans across the authority's fleet. The possible exception will be those vehicles based in locations, beyond our main charging hubs. These will most likely require individual charging points to be installed at those locations.
- 5.11 The current cost of diesel to run a small to medium-sized van is 13 pence per mile. The equivalent cost for an electric vehicle is 5 pence per mile. Based on each vehicle travelling 10,000 miles per year this would equate to a fuel cost saving of £800 per vehicle per year, or a total cost saving of £139,200 per year should all of the Authority's 174 small and medium sized vans transition from diesel to electric.
- 5.12 The charging infrastructure will be used at its greatest capacity for the overnight charging of our fleet vehicles, and for those parked up whilst employees are at the particular location. Whilst priority must be given to the charging of our fleet vehicles, there will be an opportunity to allow employees and potentially visitors to use these charge points for their personal vehicles. This may support some employees to move from petrol and diesel vehicles to electric.
- 5.13 The charge points being installed are manufactured by Pod Point and the operating system will allow us to identify the vehicle being charged by each charge point. To use our charge points employees and visitors would register via the Pod Point app, which is one of the most common apps for EV charging. The individual could then access the charge point and would pay Pod Point for the electricity used. CCBC would inform Pod Point of the price to be charged at our charge points. It is recommended that this charge should be the actual cost that we pay for the electricity plus our cost for administration and maintenance, plus 1p/kWh for the cost of administration by Pod Point. Pod Point will send CCBC a monthly statement of the electricity used and payment received from users. This information can be cross checked by ourselves as all charge point use is recorded on our system. CCBC would then invoice Pod Point for the electricity used and the CCBC administration and maintenance element. The price that we charge our staff or visitors for charging their vehicles would be a standard rate, based on the actual costs of electricity and maintenance and administration costs which could be reviewed periodically.
- 5.14 The immediate priorities are:
- To complete phase I of infrastructure works
 - To agree and undertake the home charging trial and to identify the preferred solution where employees who take vehicles home have suitable off road parking
 - To undertake the study to identify the preferred solutions where employees who take vehicles home do not have suitable off road parking
 - To transition the small and medium-sized vans to EVs as they come to the end of their lease periods and the charging infrastructure becomes operational.
- 5.15 How and where our larger vehicles will be powered will be the next significant issue to resolve. We currently have 152 larger vehicles of which we own 49 and lease 103 (see table below). Of the 33 Refuse Collection Vehicles (RCV), we own 20 and 13 are on 7-year leases with most ending in January 2028.

Vehicle Type	Owned	Leased
Small Tipper	1	38

Large Tipper	2	36
RCV	20	13
Gritter	8	5
Gully tanker	0	3
Tractor Unit	1	1
Hook Loader	2	1
Compact Sweeper	1	1
Jet Patcher	1	0
4x4	13	5
Total	49	103

The key questions to be addressed are:

- What is the total anticipated number of larger vehicles and therefore the total fuel/energy requirement, including can numbers and sizes be reduced?
- Will our larger vehicles be battery electric vehicles or hydrogen fuelled?
- Where are the vehicles likely to be based in the long-term?

5.16 The questions in 5.14 are all interlinked. Currently the majority of our larger vehicles are based at Tir y Berth, however our gritters, tippers and gully machines are split between Penmaen and Bedwas depots. There are concerns around the capacity to store vehicles at Tir y Berth, and should our vehicles at Tir y Berth transition to electric, there will need to be significant upgrades to the electrical supply and capacity. Should hydrogen be the preferred fuel? If so, sites and source of hydrogen, including the option to produce our own green hydrogen will need to be resolved. Detailed investigation and feasibility studies will need to be commissioned to provide specific technical support to develop the most appropriate solutions. These issues are complex and any solutions will require considerable development time, it is therefore important that the key issues and constraints are identified to allow the feasibility studies to start in the first quarter of 2023/24.

6. ASSUMPTIONS

6.1 Technology is changing rapidly in this area. This report is based on the most up to date information that we have available. The availability of alternatives to diesel, for our larger vehicles needs further investigation. Lead in times for charge points and the delivery of vehicles remains long and it is not anticipated that this will reduce significantly in the short-term.

7. SUMMARY OF INTEGRATED IMPACT ASSESSMENT

7.1 The Integrated Impact Assessment (IIA) identifies that there is no direct impact to service delivery from the proposal apart from the positive benefits associated with ULEVs, including lower carbon emissions with less air and noise pollution.

8. FINANCIAL IMPLICATIONS

8.1 This report sets out the achievements to date within the already approved budgets.

8.2 Detailed proposals for future phases of infrastructure provision and other initiatives will be developed and reports brought forward at the appropriate time.

9. PERSONNEL IMPLICATIONS

- 9.1 The programme of work to date has involved officers from across the Authority, most notably those from Fleet Management, Property, Procurement, HR, Facilities Management and Policy & Partnerships. This cross departmental working, plus engagement from service users will need to continue to deliver this programme.

10. CONSULTATIONS

- 10.1 The views of the listed consultees have been reflected within this report.

11. STATUTORY POWER

- 11.1 Ultra-low emission vehicles contribute to several of the Well-being goals within the Well-being of Future Generations Act (Wales) 2015.

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Cllr Julian Simmonds - Cabinet Member for Highways and Transportation
Cllr Nigel George – Cabinet Member for Corporate Services and Property
Christina Harrhy – Chief Executive
Richard Edmunds, Corporate Director, Education and Corporate Services
Mark S Williams, Corporate Director of Economy and Environment
Rob Tranter, Head of Legal Services/Monitoring Officer
Stephen Harris, Head of Financial Services and S.151 Officer
Sue Richards, Head of Education Planning and Strategy
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Liz Lucas, Head of Customer and Digital Services
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