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CLEAN ME!

Case for a grant to Domiciliary Care Agencies to use electric vehicles

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Introduction

Delivering domiciliary care services in a county like Powys has unique geographical challenges. With only 26 people per square km of Powys in comparison to an average of 150 per km in Wales, Powys is the most sparsely populated county in Wales, covering a quarter of Wales' landmass. With a population of approximately 133,000 people, it is the second most sparsely populated county in the UK.

Powys is predominantly rural, with over half of its residents living in villages, hamlets, or dispersed settlements (58.7%, in comparison to Wales' 17.1%, 2011). The Council maintain 5,077 km of roads (nearly 2000km more than the second highest ranking Council in Wales).

Research has shown that domiciliary care services have more cost pressures associated with them due to rurality (Ranasinghe, 2011). Supplying domiciliary care services to a dispersed and small population is expensive and results in greater transport and staffing costs due to high travel downtime. Some research has suggested that the costs of providing care in a rural county can be up to 20% higher than in an urban setting. The Nuffield Trust research report, Rural health care: A rapid review of the impact of rurality on the costs of delivering health care (Palmer, Appleby and Spencer 2019) found that gross current expenditure on care services in rural areas was 20% greater than urban areas, with the average hourly rate for domiciliary care 11% greater in rural areas than urban areas. This was acknowledged nationally when the Townsend Review (2001) introduced an adjustment for Councils in Wales to accommodate rurality, which is applied to community services expenditure (7.5% of the total).

In Powys, domiciliary care workers travel approximately 1.8m miles every year.

Domiciliary Care Provision in Powys

As at 1st February 2022, Powys County Council provides/commissions approximately 9,500 hours of domiciliary care per week to almost 700 individuals across the county, from private care agencies and 3rd sector organisations. In addition, there are 8 individuals who receive live-in care (over 1,000 hours per week) and 25 individuals who receive 129 hours per week of home-based respite care.

The in-house domiciliary care service delivers approximately 1,500 hours of care and support per week.

The Powys Pledge has resulted in care staff being paid 35p per mile for their travel between service users. This amount no longer enables sustainable service provision in the context of increasing fuel costs.

Domiciliary Care Travel and Economics

The increasing costs of transport fuel is challenging to domiciliary care providers. The 1.8m miles travelled by domiciliary care staff annually in Powys equates to approximately £800k of travel expenses. Several providers have purchased a fleet of vehicles to enable low paid care staff to attend to people in their own homes. This is an expensive solution but enables the service to be provided in an efficient manner.

The increasing fuel costs need to be seen in a context of an overall increase in daily living costs (utilities/food/fuel) etc which disproportionately impacts upon care workers who are on a lower income. In turn, care workers may become reluctant to travel into more rural communities.

Many care providers have considered the purchase of electric vehicles, but have found the initial cost of purchase prohibitive, as well as the limited availability of charging points in rural Powys. It is noted, however, that charging points are growing in number in the main towns of Powys, with recent press stories published on planning permission being given by the Local Authority to supply charging points in more rural areas.

The UK Situation

It was reported in April 2022 that only 13% of councils in Wales have a plan to move towards electric vehicles, although the UK Government encourages them to do so (Golwg360). Only 28% of UK councils have published plans, with a further 23% in the process of developing electric vehicle fleet plans. In Wales, only 13% of Councils have published plans.

The Department for Transport's Westminster Infrastructure Strategy, published in March 2022, aims that the Government will "transform" the situation by forcing local authorities, through consultation, to develop and deliver local strategies to secure charging points. The strategy says local leadership is "essential" to create new investment opportunities and build confidence in electric cars.

From 2030, it will be illegal to sell petrol and diesel cars and vans, and the public change is happening with more than one in six new cars registered last year an electric vehicle.

Welsh Government Support

The Minister for Finance and Local Government has outlined in a letter to Council Leaders (15 March), the availability of £400,000 "unhypothecated" [*sic*] funding to Powys County Council, which is intended to enable local authorities to increase their domiciliary support service capacity through funding driving lessons and providing access to electric vehicles for domiciliary care workers. It is expected that this would largely be through the purchase of electric fleet vehicles for use by staff in the local authority and commissioned services. This will also contribute to the decarbonisation agenda.

In addition, Welsh Government has secured agreement from the Driver and Vehicle Standards Authority (DVSA) for the prioritisation for domiciliary care workers for driving test dates. Along with the potential for funding driving lessons and improving access to vehicles, it is hoped that this will result in adding capacity to existing local authority and commissioned services.

Electric Vehicles - Benefits

There are several benefits to electric vehicles in comparison to petrol or diesel combustion engine vehicles:

1. Financial

Electric vehicle use is potentially cost-saving, within a mid-to-long-term timeframe. It can lower operating spend by reducing energy costs by 2-3 times as electricity is cheaper than petrol and diesel per mile, and their maintenance can cost 70% less compared to internal combustion engine vehicles, as they are mechanically simpler and more reliable and need less servicing.

However, electric vehicle purchase prices are higher than those for traditional internal combustion engine alternatives.

Some magazines and websites have compared running costs for electric vehicles and internal combustion engine vehicles. One such example can be found here. In summary, the following assumptions were made:

- Ownership over four years

- Annual mileage of 10,000 miles
- 30-year-old married male driver living in Cardiff, no children, working as a teacher
- Cheapest non-black-box policy
- Petrol price of 142.9p/litre, off-peak electricity price of 7.5p/kWh

	Peugeot e-208 Electric 50kWh Allure Premium : Power 136hp : Gearbox automatic : Efficiency 3.9 mi/kW : Insurance group 27E	**Peugeot 208 PureTech 130** Allure Premium EAT8 : **Power** 130hp : Gearbox automatic : Efficiency 51.9mpg : Insurance group 24E
Total Insurance Cost	£2,408.40	£2,160.04
Total Fuel Cost	£769.24	£5,000.12
Total Servicing Cost	£418	£1,046
Total Tax Cost	£0	£545
Overall Cost	**£3,595.84**	**£8,851.12**

It is clear that the running costs of an electric vehicle is more economical than an internal combustion engine vehicle.

2. Environmental

Powys County Council's climate strategy "A strategy for Climate change - Net positive Powys 2021-2030" commits to "*provide opportunities for the electrification of transport*" [pp.13]. Encouraging use of electric fleet vehicles is part of the Council's wider ambitions around reducing direct and indirect carbon emissions to net zero.

Electric vehicles support significantly reduced emissions (compared to internal combustion engine vehicles) over their lifecycle when accounting for production, use, and recycling. They are three to five times more efficient and eliminate particulate pollution, so improving air quality. For organisations that wish to be recognised for reducing overall energy consumption, this will be an important consideration and will positively impact upon the environment and meet current and expected future regulations relating to carbon emissions and reporting.

Electric cars are more sustainable than petrol and diesel internal combustion engine vehicles, generating around half the emissions.

Polluted air has been shown to cause or worsen a range of lung and heart conditions including asthma, chronic bronchitis, chronic heart disease (CHD), and stroke. In 2018, a committee of health experts

brought together by the Government estimated that at least 28,000 people die prematurely in the UK every year because of poor air quality.

Electric vehicles reduce noise pollution also. Electric vehicles moving at low speeds are noticeably quieter than those powered by internal combustion engines. For those living close to busy roads the change could be significant with research suggesting that noise levels reduced by 3dB can also lower reports of public annoyance by 30%.

3. Health and Safety

Fewer components allow for more flexibility in vehicle design, and the position of the battery pack on the bottom of an electric vehicle provides more crumple zone space. The lower centre of gravity due to the battery position also improves handling and can help to prevent rollover accidents.

The World Health Organisation estimates rising CO2 levels plays a part in 250,000 more deaths a year. Using transport which reduces such negative effects is essential and a corporate responsibility.

4. Reputational

Public concern about the threat of climate change suggests that while regulatory compliance matters, electric vehicles provide the opportunity to become environmental leaders and influence public behaviour. The public may expect care agencies working for the Council to show evidence of carbon emissions reduction now and in the future.

The UK Government undertook a social attitude survey to consider the views of motorists on electric vehicles. The key issues of concern for those taking part were the cost of initial purchase of electric vehicles and their ability to travel long distances on a single charge, where there were limited charging points.

5. Motivational

More than a nice-to-have feelgood factor, Powys County Council, along with care agencies, want to attract talent, and motivate existing employees. Employees and the public in general can take pride in their Local Authority who undertake visible progressive and forward-thinking actions, such as buying electric fleet vehicles.

Working for Powys County Council or for a commissioned care provider, who use electric vehicles and demonstrate pride in their working tools and in protecting the environment will increase potential for recruitment and occupational pride.

Charging Infrastructure

Charging electric vehicles usually requires a base for charging overnight if the car has travelled a significant distance previously. For electric vehicles to meet business needs and be convenient and cost-effective to drive, installation of proper charging infrastructure is essential.

To install charge points, off-street parking will be needed at the domiciliary care agencies' workplaces. This is not as simple as it sounds, as grid capacity can reduce the number of vehicles able to rapidly charge at the same time.

It is also possible to install charge points at employees' homes, which could overcome grid constraints at several depots. However, this could have an impact upon care staff's taxable allowances for 'company car use'.

Some Authorities have made grant funding available to help organisations install electric vehicle charging infrastructure on their premises.

Suggested Grant Opportunity

The Welsh Government's £400,000 to Powys County Council provides a unique opportunity for the Authority to deliver upon its strategic promise to "provide opportunities for the electrification of transport" by providing domiciliary care provider agencies access to electric vehicles. The proposed spend is as follows, although all costings and numbers are subject to change depending on need:

- Powys County Council purchase 10 electric vehicles for private agency care staff usage. Small internal combustion engine vehicle purchase of the type often obtained by care agencies cost approximately £17,000. The cheapest small electric vehicles range from £20,000 to £30,000. **Total cost = £250,000.**
- Purchase electric vehicles for in-house care staff usage. Offering £25,000 to the in-house domiciliary care service towards the purchase of 2 electric vehicles would enable their procurement and use. **Total cost = £50,000.**

- Servicing costs for 12 cars over 5 years. Whether funding will be used to pay for servicing costs will be ascertained by the working group. **Total cost £30,000.**
- Support installation of charge points. Installing charge points costs approximately £750. Offering £500 towards the installation of charge points at Care Agencies' premises would support greater uptake and usage of electric vehicles. It is suggested that the Council could offer grant funding for 50 charge points for domiciliary care agencies. The provider would own and be responsible for the charging unit. **Total cost = £25,000.**
- Purchase e-bikes for use in towns, offering up to £1000 to purchase a minimum of 15 e-bikes **Total cost = £15,000.**
- Offering free driving lessons to care staff both for the in-house domiciliary care service and for external providers would enable more flexibility and effective working routes and patterns. Driving lessons cost approximately £50 per hour, with the average number of hours needed to pass a driving test being 35. To offer 20 lessons to 20 learner drivers would cost. **Total cost = £20,000.**

The funding would come with Terms and Conditions that the private agencies and in-house care staff would need to sign up to. For example, electric vehicles would remain the property of the council and be written off over five years or longer depending on the make and model. Vehicles would be sold at the end of this period and funds reinvested for future purchase of electric vehicles for the domiciliary care workforce. If a private agency stopped providing care through a commissioned service within the agreed time frame, all vehicles would be returned. 10 driving lessons would be paid in advance and up to a further 10 lessons paid on passing a driving test and probationary period with the domiciliary care provider. Insurance and electricity charges would be paid for by the domiciliary care provider agency.

Opportunities will also be explored to link with other electric vehicle strategies being developed across the Council to deliver a more co-ordinated approach.

The total cost of the grant funding available would, therefore, be £390,000. The final **£10,000** would fund the administration of the grant funding within the Social Services Commissioning Team. **Total Welsh Government fund needed = £400,000.**

Recommendations

For Powys County Council to use the Welsh Government funding made available to provide domiciliary care provider agencies access to electric vehicles and offer grant funding as set out in the Suggested Grant Opportunity section above.