

ENVIRONMENT OVERVIEW AND SCRUTINY PANEL – 14 MARCH 2019

PROGRESS UPDATE ON ENERGY EFFICIENT VEHICLES AND INFRASTRUCTURE TASK AND FINISH WORKING GROUP

1. INTRODUCTION

1.1. The purpose of this report is to update the panel on the progress of the Energy Efficient Vehicles and Infrastructure Task and Finish Group. The Group has been looking at two separate but related issues, since the first Group meeting in October 2018:

- Charging infrastructure in Council car parks, for electric vehicle charging which is accessible to the public
- Council fleet review and opportunities for reducing emissions.

1.2. Regarding charging infrastructure, the Group has been in discussion with a potential delivery partner, and will report back to the Panel in June 2019 with a recommendation.

1.3. Regarding the fleet review, the Group is keen to recommend to the Portfolio Holder that the Council, initially, purchase Electric Vehicles (EVs) for use in an existing front line service. The remainder of this report concerns the background to this recommendation.

2. BACKGROUND

2.1. The group was set up to explore options for reducing emissions such as CO₂, Hydrocarbons (HC), Nitrogen oxides (NO_x) and Particulate Matter (PM), which are seen as detrimental within the district and the wider environment. More fuel efficient vehicles would produce long-term financial savings, in addition to reducing emissions.

2.2. The group agreed to engage with the Energy Savings Trust (EST), which is funded by the Department for Transport to provide support to public and private sector fleet operators who are keen to reduce emissions. The remit given to the EST was:

- To review CO₂ emitted (carbon footprint) by the Council's fleet activity
- Determine whether the Council's existing fleet provides opportunities for electric vehicles; and
- Assess the costs, both financial and in terms of emissions, if EVs were introduced.

2.3. The EST presented their findings to the Working Group on 22nd February 2019 and the team were questioned to ensure that their findings and recommendations were relevant and applicable to this Council.

3. ENERGY SAVING TRUST RECOMMENDATIONS

- 3.1. The Council provided the EST with information on the vehicle fleet, including vehicle types, numbers, mileages, fuel usage and whether the vehicles are stored overnight at a depot or at the employee's home. In total there were 190 vehicles in the list.
- 3.2. The EST used this information to identify which vehicles may be suitable for replacement with EVs. The two main variables taken into consideration were:
- Whether the average daily mileage was in the range of that provided by EVs based on current technology
 - Whether there are size-equivalent EV vehicles readily available for purchase at reasonable cost.
- 3.3. Marsh Lane Depot in Lymington has existing electric charging points which could be used without additional costs of installation.
- 3.4. An electric vehicle is initially more expensive than its diesel or petrol equivalent. However, the Whole Life Costs (WLC) were considered. These account for the purchase price (and depreciation), the estimated fuel costs for the life of the vehicle, the Service, Maintenance & Repair (SMR) costs and vehicle taxation.
- 3.5. The EST identified 41 vehicles that met the mileage and equivalent vehicle criteria. Twelve of these vehicles are parked overnight at the depots, with 29 returning to employee homes. Operation of EVs which are taken home by employees is more complicated in terms of charging, particularly where those vehicles are not parked on drives overnight.
- 3.6. The potential financial savings were calculated as shown below, for two potential EVs – Renault Kangoo and Nissan e-NV200. Replacing 12 of the existing fleet with EV's would save between £32,000 and £39,000, based over an economic life of 6 years.

WLC Findings

Kangoo ZE v Fiat Diesel		Number Replaced	
Model	WLC	41	12
Fiat Diesel	£3,791	£155,431	£45,492
Renault Kangoo ZE	<u>£2,672</u>	<u>£109,552</u>	<u>£32,064</u>
Annual Saving	£1,119	£45,879	£13,428

Nissan e-NV200 v Fiat Diesel		Number Replaced	
Model	WLC	41	12
Fiat Diesel	£3,791	£155,431	£45,492
e-NV200	<u>£3,233</u>	<u>£132,553</u>	<u>£38,796</u>
Annual Saving	£558	£22,878	£6,696

- 3.7. The EST review did not consider issues around load carrying. The load carrying capacity of e-vehicles is considerably less than that of diesel equivalents. This may make e-vehicles unsuitable for some Council functions.

4. CONCLUSIONS OF THE TASK AND FINISH GROUP

- 4.1. After considering the EST presentation, the Group suggested that a trial should ensue. This technology is rapidly improving and the battery range is increasing, and the range of vehicles on the market is expanding. These changes could create further savings in weight and range in future years.
- 4.2. It is proposed that two EVs are purchased for use by the Council's Car Parking Wardens. These vehicles rarely carry a significant load, and their mileages are within acceptable limits. They are also based at the Marsh Lane Depot overnight and therefore have access to the existing charging points.
- 4.3. In addition, two further EVs should be purchased for testing with different services and functions, to assess load bearing capability, mileage range and suitability.
- 4.4. The Group was also keen that, going forward, any small vans to be purchased should be EVs, unless not practicable (e.g. because of range, access to charging points).

5. FINANCIAL IMPLICATIONS

- 5.1. Whilst they have a higher initial purchase price, the purchase of trial of 2 EVs is estimated to save between £5,300 and £6,500 over the life of the vehicles.

6. CRIME & DISORDER IMPLICATIONS

- 6.1. There are none

7. ENVIRONMENTAL IMPLICATIONS

- 7.1. Reduction in CO₂, HC's, NO_x and PM's, which have a negative impact within the District and the greater environment.
- 7.2. Promotion of a greener agenda and leading by example.

8. RECOMMENDATIONS

- 8.1. The based on the conclusions of the Task and Finish Group, the Panel recommends to the Portfolio Holder:
 - That 2 car park warden vehicles are replaced with an electric equivalent from the existing replacement programme.

- That two further vehicles be purchased for testing with different services
- That a vehicle purchasing policy is drawn up to prioritise EVs unless not practicable according to set criteria.

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Background Papers:

None