



ADUR & WORTHING  
COUNCILS

Joint Strategic Committee  
9 July 2019  
Agenda Item 11

Key Decision [Yes]

Ward(s) Affected: All in Adur and Worthing

**Waste and Street Cleansing Vehicle Replacements: Moving to an ultra low emission fleet**

**Report by the Director for Communities**

**Executive Summary**

**1. Purpose**

- The purpose of this report is to seek the Joint Strategic Committee's approval to proceed with the purchase of six new waste and street cleansing vehicles. These vehicles are included in the 2019/20 Capital Investment Programme.
- Electric models for all six replacement vehicles have been investigated in line with policy commitments to move to a cleaner fleet (*Platforms for our Places* and *SustainableAW*). Of the vehicles required by the waste and street cleansing services, two have been found suitable to purchase as electric models. If approved, these will be the first vehicles within the councils' fleet to become electric; providing air quality benefits, and financial and carbon emissions savings.

**2. Recommendations**

Recommendation One

- The Joint Strategic Committee is recommended to approve the acquisition of the six replacement waste and street cleansing vehicles included in the 2019/20 Capital Investment Programmes as set out in this report.

### 3. Context

3.1 Each year a number of the council's fleet vehicles used for frontline services reach the end of their initial working lives. To facilitate replacements, a rolling programme is provided by the Transport section and financed via the Capital Investment Programmes.

3.2 No vehicle is replaced as a matter of course just because it is scheduled for replacement, however it is assessed on its physical condition and suitability to perform the task it is deployed on. This assists in keeping expenditure down, as well as maximising the returns from the vehicle assets employed.

3.3 Policies adopted within *SustainableAW* and *Platforms for our Places* commit to the following aims and actions to shift to a cleaner vehicle fleet, reducing harmful roadside emissions and those that contribute to climate change (see table below). All vehicles required by the Waste and Street Cleansing Service were assessed for suitability for electric and hybrid versions.

<b>Sustainable AW</b>	
Support electric vehicle uptake to improve air quality	Deliver further public electric vehicle charge points and seeking funding for further expansion, exploring electric vehicles for council use.
Pledge 100% Clean Energy by 2050	Pledge to 100% clean energy by 2050, endeavouring to ensure our communities have warm homes; secure, affordable energy; breathe clean air; drink clean water; and live in a town of which they can be proud. Join UK100, the national network of local authorities committed to shifting to clean energy in their areas
<b>Platform 3: Stewarding our Natural Resources</b>	
Work to deliver sustainable travel initiatives and infrastructure, tackling air quality	Transition to cleaner fuels for council fleet and vehicle rentals through e.g. hybrid and electric vehicles.

3.4 Extensive research into market availability of ultra low emissions replacement vehicles (ULEVs) was undertaken by the Environmental Services Transport Manager. Cost comparisons and business cases were developed for replacement vehicles. Currently two vehicles: two small vans have been identified as suitable for replacement with electric models.

#### 4. Issues for consideration

4.1 It is proposed that 6 vehicles are procured in the financial year 2019/20, these all being replacement vehicles. All of the above vehicles have come to the end of their economically useful life and are in need of replacement to avoid repair costs escalating and vehicle availability reducing. The vehicles for replacement are listed below :

Replacement vehicles sought
2 x Small vans (Electric powered)
1 x 7.5 tonne Refuse vehicle
1 x 3.5 tonne Litter Collection vehicle
1 x 4 tonne Compact Sweeper
1 x 7.5 tonne Sweeper

4.2 Two small vans will be replaced with electric powered versions Unfortunately at the time of writing this report there are no alternative powered production models available for the larger vehicles. See section **7 Environmental** in the **Sustainability & Risk Assessment** section for further information on alternative powered vehicles.

4.3 As our vehicle fleet needs to be renewed, they will be subject to the latest emissions standards, currently Euro 6, and are consistently becoming cleaner and more fuel efficient. Electric vehicles will always be assessed for suitability as replacement for smaller vehicles.

4.4 As the technology evolves, replacements for larger vehicles will also be explored. The biggest obstacles in procuring alternative powered vehicles are cost and availability. Vehicles such as sweepers can be over three times more expensive compared with the diesel powered equivalent. While some small vans are now available and real world tested, most of the larger vehicles are at the present in the testing stage and are not in full production yet.

4.5 Free consultancy was secured by the Sustainability Manager from the Energy Savings Trust (funded by the Department of Transport) to develop an '*Ultra Low Emissions Vehicles (ULEV) Report for Adur & Worthing Councils (AWC)*'. This explored opportunities to replace the councils commercial vehicles with electric alternatives and the carbon and cost savings that could be achieved.

4.6 The '*ULEV Report for AWC*' reviewed the entire AWC fleet of 118 commercial vehicles for EV replacement. It stated: '*of these, 100 are the larger (over 2.6 tonne) LCVs, for which there is not, currently, an economically viable electric alternative. This leaves 18 LCVs that fall into the small/medium size category (car derived and less than 2.6 tonne) and which may be suitable for replacement with electric vehicles*'. These findings confirm those of the Environmental Services Transport Manager.

4.7 The '*ULEV Report for AWC*' assessed the savings that could be achieved through replacement of the 18 diesel LCVs with EVs: 41 tonnes per year of tailpipe carbon emissions reduction; and whole life cost savings of £11,000. The report recommends replacement of all LCVs with EVs when due for replacement.

4.8 The potential for a solar photovoltaic canopy over the Commerce Way car park linked to electric vehicle charging will be explored as part of the *Innovate UK Smarthubs Project* with West Sussex County Council. Master planning for Smarthubs is scheduled through 2019; installations will take place throughout 2020.

## **5. Engagement and Communication**

5.1 The fleet user sections whose vehicles are due for replacement are fully consulted throughout the procurement process.

5.2 The Sustainability Manager and Environmental Health Officer (Air Quality) were consulted.

5.3 The Energy Savings Trust were consulted to review the councils fleet for replacement with EVs and produced a *ULEV Report for Adur & Worthing Councils* (see paragraphs 4.5 - 4.7).

## **6. Financial Implications**

6.1 The 2019/20 Capital Investment Programmes for Adur and Worthing Councils include a total provision of £336,000 for the purchase of vehicles detailed in the report. The apportionment of costs for the joint recycling and refuse service is agreed as Adur 36.4% and Worthing 63.6%. For the joint street cleansing service it is Adur 39.4% and Worthing 60.6%. Details of budgets and estimated costs are shown in the following table and are based on diesel powered vehicles.

<b>Vehicles</b>	<b>Adur Capital Budget £</b>	<b>Worthing Capital Budget £</b>	<b>Total Capital Budget £</b>
1 x 7.5 tonne Refuse Vehicle	32,210	52,790	83,000
2 x Small vans	10,990	18,010	29,000
1 x 3.5 tonne Litter vehicle	16,150	24,850	41,000
1 x 4 tonne Compact Sweeper	27,190	41,810	69,000
1 x 7.5 tonne Sweeper	44,920	69,080	114,000
<b>Totals</b>	<b>129,460</b>	<b>206,540</b>	<b>336,000</b>

6.2 Where practicable and in line with the Platforms for Places plan alternative powered vehicles will be procured. Whilst the initial acquisition costs associated with these types of vehicle are higher, both the fuel costs and the maintenance costs are lower offsetting the revenue implications of higher acquisition cost. Over the lifetime of the vehicle the overall cost should be the same as a diesel equivalent. See the Sustainability & Risk Assessment, 7 Environmental section below for further details.

6.3 An option appraisal has been undertaken for all of the proposed vehicle acquisitions which compared the cost of two financing options, these being, Finance Lease OPV and Borrowing OPV. The cash outlays for each option were further discounted to Overall Present Values (OPV) to reflect the relative timing effects on the value of money, which is regarded as a more appropriate indicator of overall cost. The results are summarised in the Table below. On an OPV basis, outright purchase by borrowing from the PWLB is the cheapest option for all of the proposed vehicle acquisitions. For this to be the case, prudential borrowing with the principal repaid in full on maturity after 9 years has been applied. This is due to the Councils being able to borrow at a lower interest rate(1.62%) than offered by the leasing companies(3.22%) and the discounting effect of the timing of cash flows. Another advantage of purchase is the opportunity to keep the vehicles in service longer than this term if economically viable, without paying additional lease extension costs.

	<b>Option 1 Finance Lease £</b>	<b>Option 2 Borrowing £</b>
Cost of Principal & Interest		
<b>Vehicles</b>		
7.5 tonne Refuse vehicle	73,837	68,340
2 x small vans	26,875	24,802
3.5 tonne Litter Collection vehicle	38,936	36,008
4 tonne Compact sweeper	67,821	62,828
7.5 tonne Sweeper	111,083	102,877
<b>Total Vehicle Cost</b>	<b>318,552</b>	<b>294,855</b>

## 7. Legal Implications

7.1 As a waste collection authority, the councils are obliged to have waste collection facilities.

7.2 Under section 89 of the Environmental Protection Act, 1990 the Councils are required to keep land under their direct control, which is open to the air and is land (but not a highway) and to which the public are entitled or permitted to have access with or without payment, so far as is practicable, clear from litter and refuse.

7.3 The councils have power under section 111 of the Local Government Act, 1972, to do anything (whether or not involving the expenditure, borrowing or lending of money or the acquisition or disposal of any property or rights) which is calculated to facilitate, or is conducive or incidental to, the discharge of any of their functions. The procurement of vehicles is ancillary to the above functions

7.4 Section 1 of the Local Authorities (Contracts) Act 1997 provides that every statutory provision conferring or imposing a function on a local authority confers power on the local authority to enter into a contract with another person for the provision or making available of assets or services, or both, (whether or not together with goods) for the purposes of, or in connection with, the discharge of the function by the local authority.

**Background Papers**

Capital Investment Programme 2019/20

Platforms for our Places

Sustainable AW

**Officer Contact Details:-**

Andy Northeast

Transport Manager

01273 263149

[andy.northeast@adur-worthing.gov.uk](mailto:andy.northeast@adur-worthing.gov.uk)

## **Sustainability & Risk Assessment**

### **1.0 Economic**

An option appraisal was carried out which has determined that outright purchasing through capital borrowing is the cheapest option for both Councils.

### **2.0 Social**

Matter considered and no issues identified

### **3.0 Social Value**

Matter considered and no issues identified

### **4.0 Equality Issues**

Matter considered and no issues identified

### **5.0 Community Safety Issues (Section 17)**

Reducing the amount of street litter and keeping the streets clean helps to contribute to the reduction in crime and anti - social behaviour.

### **6.0 Human Rights Issues**

Matter considered and no issues identified

### **7.0 Environmental**

A commitment in the council's Platform for Places plan aims to deliver a more sustainable fleet of vehicles through the use of cleaner alternative fuels, be it hybrid or electric powered vehicles.

For the smaller vans there are now reliable and cost effective electric vehicles (EVs) that can be procured as an alternative to the current fossil fueled versions and fleet replacements will be moving in this direction.

For the larger heavy goods vehicles, while advances are being made with hybrid (only one production model at the present) and electric powered versions these are still in the prototype and testing stages and will not be coming to the market place until 2020 at the very earliest.

With this new technology comes a higher purchase price and a payload disadvantage over its diesel equivalent which has taken into consideration.

Vehicle replacement timeframes will have to be reduced for EVs from the current 9 / 10 years to 7 years due to the battery power pack reducing in charge at around this age which would be uneconomical to replace. As the battery technology improves in future years this may be able to return to a 9 year plus cycle.



Where there is no economic alternative but to procure diesel powered vehicles, these will be of the latest Euro 6 specification with advanced exhaust emission controls that will be significantly cleaner than the vehicles they are replacing.

## **8.0 Governance**

Matter considered and no issues identified