

Report of: Projects, Programmes and Procurement Unit

Report to: Director of Resources & Housing

Date: 1st September 2017

Subject: Vehicle Replacement - 51 Electric Vehicles

Scheme No. 32631/COM/000

Are specific electoral wards affected? If relevant, name(s) of ward(s):	🗌 Yes	🛛 No
Are there implications for equality and diversity and cohesion and integration?	Yes	🛛 No
Is the decision eligible for call-In?	🛛 Yes	🗌 No
Does the report contain confidential or exempt information? If relevant, access to information procedure rule number: Appendix number:	Yes	🛛 No

Summary of main issues

- 1. The Council currently hires a number of vehicles on a long term basis which is not cost effective when compared to the whole life cost of purchasing and operating them as white fleet.
- 2. The Head of Fleet Services has identified 39 of these which are suitable to be purchased as Electric Vehicles (EV), and all have the appropriate plug-in infrastructure to support this switch.
- 3. The cost of purchasing these vehicles will be approximately £542,100 and will provide savings of £297,529 over seven years.
- A further 12 vehicles have been identified as part of the Authority's cyclical replacement programme as suitable for transition to EVs. The cost of purchasing these 12 vehicles will be approximately £166,800.
- 5. Swapping diesel for EV breaks-even at c4000 miles per annum over a 7 year whole life cost analysis. EVs that drive more than c4000 therefore deliver savings to the authority due to electricity being a cheaper alternative to diesel.

Recommendations

6. The Director of Resources & Housing is requested to:

- 6.1. Note the content of this report setting out the benefits to the environment and providing value for money by switching from long term hire to acquiring our own vehicles.
- 6.2. Authorise spend of £708,900 for the replacement of 51 fleet vehicles across a range of services;
- 6.3. Authorise the commencement of a competitive tender process, which will subsequently lead to the award of a contract, for the purchase of 51 Electric Vehicles.

1 Purpose of this report

1.1 This report provides the benefits of replacing 39 vehicles that are currently on long term hire with purchased EVs as well as replacing a further 12 diesels vehicles on the cyclical programme with EVS. The report seeks to obtain authority to spend and authority to procure to enable 51 EVS to be procured.

2 Background information

Air pollution and air quality improvement

2.1 Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions.

2.2Leeds City Council is under significant pressure to improve air quality in order to meet European Directives and improve the health of the city's residents, following being identified by Defra as being non-compliant with annual concentrations for NO_2 . Leeds must be compliant with concentration levels for NO_2 by 2020.

2.3 Leading by example, the Council has set a target of 100% of its fleet being ULEV or Alternative Fuel by 2025. Already, over 40 fleet vehicles have been switched to Electric Vehicles (EV) and over 20 to Alternative Fuel.

Long term fleet hire

2.4 There is an existing vehicle hire arrangement set up for a number of conventional internal combustion engine (ICE) (petrol or diesel) fleet vehicles as detailed in section 2.10. This was initially a temporary arrangement with a view to purchasing the vehicles at the end of the short term loan. These vehicles have not been purchased and are subsequently being hired on a long term basis.

2.5 This long term hire arrangement is not representing good value for money. In order to exercise the Council value of 'spending money wisely' the purchase of these vehicles is recommended. Additionally this will contribute to meeting the target stated in section 2.3 of this report.

2.6 The 39 vehicles currently on long term hire are used across a range of locations and service areas and their total annual mileage is 279,274. The details of these are contained in Appendix 1 of this report.

Electric Vehicles

2.7 Electric Vehicles (EVs) have a reliable range of at least 60 miles between charges and in the right operating conditions this can extend to 100 miles. With 250 working days in the year the 70 mile range is equivalent to 17,500 miles/annum on a single daily charge. This is important as the high purchase cost of EVs is recovered during their life as a result of the low fuel/energy cost which is typically about £0.04/mile, a saving of £0.08/mile on a conventional internal combustion engine (ICE) petrol or diesel vehicle.

2.8 Depending on operational requirements, vehicles that typically drive between 30-70 miles per day are considered suitable for EV use. Those that run mileage at the lower end (c4000 miles per annum) can break-even (where the capital used to purchase the vehicle has no interest attached) mileage at the higher end of this range and above can generate revenue savings over the life of the vehicle.

2.9 Seven of the identified long-term hire ICE fleet vehicles do not meet an annual mileage of c4000. These lower mileage vehicles will be reviewed as part of the overall fleet rationalisation plan and if it deemed at a later date that it is possible to remove these vehicles, the vehicles will be deployed elsewhere in the council as other diesels come up for replacement.

2.10 The environmental case for using EVs is increasingly compelling. The carbon emissions associated with EVs are from the electricity used to charge them. When compared with diesel counterparts, they produce around two thirds less CO_2 . EVs also have zero tailpipe emissions of NO_X and PM_{10} which is important for air quality.

Vehicle type	No. of vehicles	Service area
Small Van	23	Environment and Waste, IT Services, LBS, Locality, Parking Control, Parks
Medium Van	11	Environment and Waste, LBS, Parking Control
7.5t Cage Tipper	1	LBS
3.5t Tipper	1	LBS
3.5t Luton	1	Environment and Waste
3.5t Dropside	1	LBS
3.5t Cage Tipper	1	LBS

The vehicles identified as suitable to switch to EV are detailed below:

2.11 Sufficient charging infrastructure for these vehicles is already in place at each service area location. Each location has between 1 and 21 plug in points: Farnley Hall (1), Roundhay Park (1), Golden Acre Park (1), Lotherton Hall (1), Temple Newsham (1),

Kirkstall (4), Knowsthorpe Gate (4), Apex House (4), Reginald Centre (4 – to action), Woodhouse (10), Seacroft (21).

2.12 The Council has already switched 44 fleet vehicles to EVs. There have been minimal functional or maintenance issues found with these thus far, and the officers using these vehicles have given positive feedback on operating them.

2.13 An additional benefit of changing these vehicles to EVs is the communication of air quality issues through the vehicle branding. Each vehicle will be branded up with either Clean Air Leeds imagery (the artwork for this has already been produced and is currently being used on 12 EV vans) or other 'green vehicle' branding, communicating the importance of EVs in tackling air quality issues.

3 Main issues

3.1 Corporate Contract Procedure Rules (CPRs) state that Director or Chief Officer approval is required prior to the commencement of any formal tender process valued over £100,000. Article 13 of the Constitution states that any decision relating to an executive function likely to result in the authority incurring expenditure of over £250,000 is classed as a Key Decision.

3.2 This proposal supports delivery of the Best Council Plan through its contribution towards the 2017/18 'low carbon' priority, specifically the 'reducing emissions' target, through the reduction in diesel and petrol emissions from switching these 39 vehicles to ULEVs.

3.3 Moreover, the proposal sets out measures which support the reduction of NO_2 emissions in order for Leeds to become compliant with EU directives by 2020, as mentioned in section 2.2 of this report.

3.4 Electric Vehicles are zero emissions at the tailpipe and will ensure 100% compliance with a potential Clean Air Zone.

3.5 This proposal supports the Council value of 'spending money wisely' and would lead to a £297,529 saving over 7 years; an average saving of approximately £42,504 each year.

3.6 The business case for the 39 long term hire vehicles is detailed in Appendix 2. The total annual hire costs are currently £197,735. The gross savings of switching from hire to purchase is £682,625 over seven years. However, Fleet Services currently charge directorates for hire and fuel surplus, which has also been taken off the savings. The net savings come down to £297,529 over seven years.

3.7 Grants are available for the purchase of EVs through the Office for Low Emission Vehicles (OLEV) 'Plug-in vehicle grant'. The grant will pay for 35% of the purchase price for these vehicles, up to a maximum of $\pounds4,500$ per vehicle. This has been included in the business case detailed in section 3.6 of this report.

3.8 The business case for the cyclical fleet replacements is detailed in Appendix 3.

3.9 The preferred route to procurement is through the vehicle framework 'Framework for the supply of vehicles and specialist bodies' (YORE-9AQKZA). The tender will be open for four weeks, with one week for evaluation. This would be the quickest route, taking a

maximum of two months. This route has been chosen as it is the quickest route to purchasing fleet and has been used previously to purchase EVs.

4 Corporate considerations

4.1 Consultation and engagement

- 4.1.1 It is not considered that the content of this report or the recommendations made will have a significant impact on any particular ward or community, and as such no consultations have taken place with the general public.
- 4.1.2 Finance and procurement teams have already been consulted with, and we will continue to work with them during the procurement process.
- 4.1.3 The Head of Fleet Services has consulted with the Executive Member and all service areas that currently use the identified 51 vehicles.

4.2 Equality and diversity / cohesion and integration

4.2.1 An equality, diversity and cohesion screening document has been undertaken and it is not considered that the content of this report or the recommendations made will have any impact on any specific group or individuals.

4.3 Council policies and the Best Council Plan

4.3.1 This proposal supports the delivery the Best Council Plan. This contributes towards the 2017/18 'Low carbon' priority, specifically the 'reducing emissions' target, through the reduction in diesel and petrol exhaust fumes from making the switch to EVs. In parallel, it supports to the delivery of the Leeds target of 100% reduction in carbon emissions by 2050.

4.3.2 This proposal is being delivered under the 'Cutting carbon and improving air quality' programme of work, within the Best Council Plan, and also supports the Council in leading by example and aiming for 100% fleet vehicles to be ULEV or Alternative Fuel by 2025.

4.4 Resources and value for money

4.4.1 Based on taking the preferred procurement route utilising the existing vehicle framework (YORE-9AQKZA), the savings for ending the hire agreements per year will amount to an average of £42,504 or £297,529 over a seven year period. Compared with the hire costs which amount to £197,735 annually, this switch to ULEVs clearly provides value for money.

4.4.2 For the cyclical replacements, all vehicles selected for replacement currently drive at least 4000 miles per annum as such, there will be no additional cost to the authority in the procurement of this portion of the fleet.

4.4.3 Capital Funding and Cashflow

Vehicle Replacement	TOTAL	TO MARCH	FORECAST				
Programme		2017	2017/18	2018/19	2019/20	2020/21	2021 & on
	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Replacement Fleet Vehicles (4)	9856.7		0.0	0.0	9856.7		
Replacement Hire Vehicles (4)	2291.1		0.0	1291.1	1000.0		
TOTALS	12147.8	0.0	0.0	1291.1	10856.7	0.0	0.0
Authority to Spend	TOTAL	TO MARCH	FORECAST				
required for this Approval		2015	2017/18	2018/19	2019/20	2020/21	<mark>2021 & on</mark>
	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Replacement Fleet Vehicles (4)	166.8		166.8				
Replacement Hire Vehicles (4)	542.1		542.1				
TOTALS	708.9	0.0	708.9	0.0	0.0	0.0	0.0
Total overall Funding	TOTAL	TO MARCH	FORECAST				
(As per latest Capital		2015	2017/18	2018/19	2019/20	2020/21	2021 & on
Programme)	£000's	£000's	£000's	£000's	£000's	£000's	£000's
LCC Supported Borrow ing	12856.7		708.9	1291.1	10856.7		
Governemnet Grant	0.0		0.0	0.0			
LCC Unsupported Borrow ing	0.0		0.0	0.0			
Total Funding	12856.7	0.0	708.9	1291.1	10856.7	0.0	0.0
Balance / Shortfall =	0.0	0.0	0.0	0.0	0.0	0.0	0.0

4.5 Legal implications, access to information and call-in

4.5.1 The commencement of a procurement exercise for the purchasing of vehicles as detailed within this report will ensure compliance with the Councils own CPRs.

4.5.2 This decision is a Key Decision and therefore will be subject to call-in.

4.6 Risk management

- 4.6.1 The greatest risk that this project faces is the fluctuation in the price of electricity and diesel, due to switching from diesel vehicles to plug-in ULEV or EV and relying on electricity for fuel. The business case for this switch includes a significant margin, therefore it would require a substantial fluctuation for it to break even or lose profit. This risk is unlikely to transpire and the market price of both is stable at the time of writing this report.
- 4.6.2 Another risk to this project is the reliability of plug-in ULEV and EV technology. The Council already has over 40 EVs in its fleet and have not faced any maintenance or operational issues thus far. Therefore this risk is considered to be low.
- 4.6.3 If the recommendation to procure these 51 fleet vehicles is not approved then the Council will risk not meeting the target of 100% of fleet vehicles being alternative fuel by 2025.
- 4.6.4 Additionally, with the possibility of a Clean Air Zone being introduced into the city by 2019, the Council must ensure all fleet vehicles are compliant with the categories as defined compliant by Defra. The likely requirement will be petrol EURO 4 standard and diesel EURO 6 standard.

4.6.5 Another area where EVs will deliver further benefits is in supporting work for the Authority to deal with the possibility of a fuel strike or crisis in the future. Access to EVs would mean home care and other critical services could continue to function where fuel is unavailable. This has been examined under the fuel crisis recovery plan, and EVs have been identified as fundamental to managing this risk.

5 Conclusions

5.1 The Council is currently hiring 39 fleet vehicles on a long term basis which is not cost effective. A cheaper alternative has been identified by purchasing EVs, which will additionally support the Councils ambition of 100% fleet being ULEV by 2025 and lead by way of example in improving air quality. A further 12 vehicles have been identified from the cyclical replacement programme, which will further enhance the council's ability to leverage value from bulk purchase. A procurement is recommended.

6 Recommendations

- 6.1 The Director of Resources & Housing is requested to:
- 6.2 Note the content of this report setting out the benefits to the environment and providing value for money by switching from long term hire to acquiring our own vehicles;
- 6.3 Authorise spend of £708,900 for the replacement of 51 fleet vehicles across a range of services;
- 6.4 Authorise the commencement of a competitive tender process, which will subsequently lead to the award of a contract, for the purchase of 51 Electric Vehicles.

7 Background documents¹

7.1 None.

¹ The background documents listed in this section are available for download from the Council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.