VEHICLE AND PLANT REPLACEMENT STRATEGY 2019-2029

1 Recommendations

1.1 Consider and comment on the strategic context of Fleet Management as set out in this report; and

1.2 Agree that a draft Fleet Replacement Strategy is brought back to this Committee in the autumn of 2019.

2 Background/Discussion

2.1 Fleet Service provides a high quality service and this strategy aims to continue that with an emphasis on continued improvement, cost savings and a drive towards a more efficient environmentally friendly fleet. Together Internal Transport and Vehicle Maintenance Service (VMS) directly support front line operations by providing and maintaining a comprehensive fleet for all aspects of work undertaken by Aberdeenshire Council.

2.2 The Council operates 168 vehicles that require a large goods operator licence (O Licence) which is granted by the Traffic Commissioner. There are a number of undertakings that the Council must comply with, failure to comply with these conditions is a criminal offence and may result in the licence being revoked, suspended or curtailed. Wherever possible these requirements will be applied to all vehicles operated by the Council.

2.3 The general requirements of our ‘O’ Licence cover:

- Laws relating to driving and vehicle operation are observed.
- Vehicle maintenance arrangements.
- Drivers hours and records management.
- Vehicle overloading.
- Maintaining our operating centres.
- Provision of sufficient financial resource.
- Professional competence.
- Good repute.

2.4 Fleet Services currently supply 2686 vehicles and items of plant that support the delivery of front line services, these include:

- 168 Vehicles over 3.5t and 6 trailers over 3500kg;
- 78 Welfare and school minibuses;
- 482 Vans and tippers up to 3500kg;
- 134 Ride on mowers, mini tractors and mini diggers;
- 38 Telehandlers;
- 13 Electric/Hybrid Vehicles;
- 28 Heavy Plant (Quarries and Surface Dressing); and
- 1739 Other vehicles, trailers and plant for service delivery
2.5 To support the service delivery of these vehicles and plant the Council operates 5 repair depots (Macduff, Mintlaw, Inverurie, Stonehaven and Aboyne) with 66 mechanics across the 5 repair depots and ten office based staff within the Internal Transport section, this includes two Fleet Compliance Officers whose role is to ensure compliance and adherence to our ‘O’ Licence obligations.

2.6 The current strategy was approved by Policy and Resources Committee on 13 June 2013 (http://committeesinternal.aberdeenshire.gov.uk/Committees.aspx?commid=11&meetid=12346) with the objective to have a 10 year vehicle and plant replacement programme. Some of the major changes since then include:

   a) The Health and Social Care Partnership has seen the requirement for an additional 36 vehicles.

   b) Changes to the mileage allowance for private car users has seen additional vehicles placed on the in-house fleet as high mileage users are now provided with a vehicle for business mileage.

   c) Between March 2013 and October 2014 Waste Services introduced a new collection service resulting in 46 new Refuse Collection Vehicles being purchased over 18 months and resulting in an increase in the number of refuse collection vehicles.

2.7 Overall since 2013 an additional 210 vehicles/plant have been added to the fleet putting pressure on the replacement budget. To balance the replacement budget with Service requirements and increasing vehicles costs we use data from our fleet management system Tranman, to plan, propose and decide with each Service which vehicles are replaced. Currently the planned replacement for light commercial vehicles is 7 years, large commercial vehicles between 7 - 9 years and plant at 10 years. Deciding factors will include:

   a) The increased downtime and maintenance costs for older vehicles along with incidental costs to provide replacement cover.

   b) Reduced emissions and better fuel efficiency from newer more modern engines.

   c) Vehicle utilisation, miles travel or hours used.

   d) Safety systems including CCTV, auto braking and reversing assist.

   e) Council image portrayed by the condition, reliability and age of the fleet.

Currently outright purchase is the preferred method of acquiring vehicles and a quarterly options appraisal is carried out comparing different funding options. Appendix 1 sets out the issues considered when comparing Purchase v Lease.
2.8 In recent years a small number of electric vehicles have been introduced to the fleet. Uptake with these has been slow mainly due to the limited range and the large geographical size of Aberdeenshire that our officers and staff need to cover. Battery technology has moved on greatly over the last 12 - 18 months and we are now seeing cars with greater ranges, up to 250 miles coming to market which will enable us to implement these into our fleet. In addition, manufacturers are developing more electric commercial vehicles, and these will form part of our replacement strategy. As technology and performance improves more of the fleet will fall within the scope for alternative fuels, battery, hydrogen, and CNG.

2.9 Vehicle management and replacement strategy Service Level Agreement meetings are held regularly with all Services to address any service concerns, fleet compliance and technically issues.

2.10 Officers from Fleet Service participate in the Association for Public Service Excellence (APSE) Transport and Mechanical advisory group sharing information, issues and initiatives with colleagues across Scotland and also the Performance Networks Transport Group which enables us to compare data across a range of activities relating to all aspects of Fleet Services with similar authorities across the UK. In addition to these officers also attend the Scotland Excel User Information Group meetings, providing input on current Excel frameworks and helping to improve future frameworks.

**Strategic Context**

2.11 The Scottish Government has committed to phasing out the sale of new petrol and diesel cars and vans by 2032 whilst Low Emission Zones (LEZ) will be introduced across 4 Scottish cities by 2020. The LEZ proposed for Aberdeen may affect some Aberdeenshire vehicles and staff as they pass through the city, until our vehicles are compliant they will need to take alternative routes. The Government target of 2032 means that many of the vehicles we purchase over the next 3 - 5 years will have to be replaced with Ultra Low Emission Vehicles (ULEV) at the end of their life.

2.12 Aberdeenshire is a large area covering approximately 2500 square miles with a population of over 260,000 many living in remote communities many of whom rely on services provided by the Council. The fleet replacement programme will help ensure Aberdeenshire Council has a fit for purpose, safe, reliable and cost effective fleet to support the strategic, corporate and service objectives of the Council and to assist in efficient service delivery.

2.13 The Council measures its environmental impact by its carbon footprint, the size of our fleet, how modern it is and how efficiently it is used effect the size of our Carbon Footprint. Modern fuel-efficient vehicles and plant produce less harmful emissions helping to improve air quality across Aberdeenshire.

2.14 Through the introduction of Telematics across the entire fleet we will encourage Service users to drive safely and efficiently. This will be achieved through working with UK Telematics, the Council’s telematics provider, to improved utilisation of our vehicles, reducing unnecessary idling, driver behaviour monitoring and through driving training. **Appendix 2** contains the presentation made to Infrastructure Services Committee on 23 August 2018.
2.15 Through the Council Climate Change Action Plan commitments we have an ambition to convert the fleet to ULEV. This will depend heavily on the route manufacturers of commercial vehicles take and then ensuring we have the infrastructure in place to support the operation of the vehicles.

2.16 The infrastructure we build today is directly influenced by how Services currently work, however consideration must be given to any proposed or planned change in operating practices/procedures. For example Building maintenance colleagues are now allocating jobs directly to their teams who start and finish at their home addresses no longer parking at depots overnight. In doing so they are helping reduce mileage travelled, fuel used and increase efficiency.

2.17 Over the next 2 - 3 years we expect their typical daily business mileage will come within range of electric vans along with increased options for on-board charging of power tools so it has to be recognised that it is not an option for all charging to be done at depots. Investigation into the feasibility of installing EV chargers at employee’s homes may need to be carried out to determine:

   a) Any tax implications for the employee.
   b) How the Council will reimburse electricity costs.
   c) Energy infrastructure to employee’s home.

2.18 Additionally, other Council premises such as Workshops, Schools and Sheltered Housing will need to be considered as part of the overall approach to how we deal with overnight parking/charging locations.

2.19 The Head of Finance and Monitoring Officer within Business Services have been consulted in the preparation of this report and their comments are incorporated within the report and are satisfied that the report complies with the Scheme of Governance and relevant legislation.

3 Scheme of Governance

3.1 The Committee is able to consider and take a decision on this item in terms of Section F1.1 and F2.2 of the List of Committee Powers in Part 2A of the Scheme of Governance as it relates to functions undertaken by the Transportation Service.

4 Implications and Risks

4.1 An equality impact assessment is not required because the recommended actions do not have a differential impact on people with any of the protected characteristics.

4.2 The current in-house teams are trained to maintain the existing fleet/plant but we will require to develop and train our future workforce to maintain and operate the ULEV vehicles of the future.
4.3 The Fleet Services team will also require to evolve and develop to build in the emerging technology and innovation from the sector. This may require short to medium term specialist resources as our own officers are trained.

4.4 The table below highlights the cost differential between a diesel and electric Daily 3.5t Tipper, based on a 7 year life and 12,000 miles per annum. *Grant based on maximum available in 2018. **Electricity charged at 0.15p per KWH and Diesel at £1.35 per litre.

<table>
<thead>
<tr>
<th></th>
<th>Electric</th>
<th>Diesel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>£80,000</td>
<td>£27,200</td>
</tr>
<tr>
<td>Grant</td>
<td>£8,000*</td>
<td>£0</td>
</tr>
<tr>
<td>Fuel**</td>
<td>£8,400</td>
<td>£18,865</td>
</tr>
<tr>
<td>VED</td>
<td>£0</td>
<td>£1,820</td>
</tr>
<tr>
<td>Overall Cost</td>
<td>£80,400</td>
<td>£47,885</td>
</tr>
<tr>
<td>Saving Life</td>
<td>£32,515</td>
<td></td>
</tr>
<tr>
<td>Saving Annual</td>
<td>£4,645</td>
<td></td>
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</tbody>
</table>

4.5 The overall cost for replacing this type of vehicle with electric rather than Euro VI diesel currently would add £717k to the 2020/21 budget if we were to replace the 16 scheduled for replacement with electric or we would require an additional £4m to replace all of our Daily 3.5t vehicles. There are other vans where an electric version is available, these too would incur a significant additional cost at this stage.

4.6 The table below shows the predicted Capital requirement compared to actual Capital Budget available for Fleet replacement.

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Capital Required</th>
<th>Capital Agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019/20</td>
<td>£7,681,414</td>
<td>£4,500,000</td>
</tr>
<tr>
<td>2020/21</td>
<td>£6,695,060</td>
<td>£9,775,000</td>
</tr>
<tr>
<td>2021/22</td>
<td>£7,589,858</td>
<td>£5,000,000</td>
</tr>
<tr>
<td>2022/23</td>
<td>£7,862,061</td>
<td>£5,000,000</td>
</tr>
<tr>
<td>2023/24</td>
<td>£9,817,394</td>
<td>£5,000,000</td>
</tr>
<tr>
<td>2024/29</td>
<td>£39,789,748</td>
<td>£25,000,000</td>
</tr>
</tbody>
</table>

4.7 The table below details fuel used, cost and miles travelled over the last five years by our own fleet.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Miles Travelled .000</td>
<td>7,968</td>
<td>7,828</td>
<td>9,242</td>
<td>9,405</td>
<td>10,198</td>
</tr>
<tr>
<td>Total Cost £.000</td>
<td>3,544</td>
<td>3,068</td>
<td>3,074</td>
<td>3,240</td>
<td>3,285</td>
</tr>
<tr>
<td>Diesel Lts .000</td>
<td>3,240</td>
<td>3,200</td>
<td>3,172</td>
<td>3,203</td>
<td>3,057</td>
</tr>
<tr>
<td>Unleaded Lts .000</td>
<td>75</td>
<td>76</td>
<td>67</td>
<td>52</td>
<td>54</td>
</tr>
<tr>
<td>Ad Blue Lts .000</td>
<td>8</td>
<td>25</td>
<td>26</td>
<td>26</td>
<td>30</td>
</tr>
</tbody>
</table>

4.8 There are a number of other related projects that need to be considered at the same time as the fleet replacement as these are interlinked.

- Electric vehicle charging infrastructure.
- Fuelling/charging options within new key depot/office facilities.
• Introduction and use of telematics across the fleet.

4.9 The following graph shows the split between diesel, hybrid and electric vehicles currently on fleet and indicates how Fleet Services intend to change over 3, 5 and 10 years the reliance on diesel and change to ULEV. The change to alternative fuels will be reliant on suitable vehicles coming to market, becoming more affordable over time and for the Council having the infrastructure to support the change.

![Graph showing vehicle data](image)

4.10 Investment in our workshops and staff is going to be required if we are to be able to service, maintain and support the change to ULEV’s and plant. Specialist training will be required for our technicians to be able to work on these high voltage systems along with the provision of specialist PPE and workshop equipment. Staff retention may be an issue as main dealers look to recruit skilled technicians and offer higher rates of pay.

4.11 The following Risks have been identified as relevant to this matter on a Corporate Level ([Corporate Risk Register](#))

- **ACORP001** Budget Pressures, alternative vehicles are not currently available or are currently unaffordable preventing the Council making progress into decarbonising the fleet, as we get closer to 2032 a higher number of vehicles will need changing and will have an impact on budgets.

- **ACORP001** Charging infrastructure is insufficient to support a rapid change to EV’s and will require investment. Other alternatively fuelled vehicles such as CNG or Hydrogen are in their infancy and expensive, refuelling stations for these options are complex, expensive and take time to construct.
• **ACORP003** Workforce - Attracting, training and retaining technicians to service and maintain ULEV’s.

The following risks have been identified as relevant to this matter on a Directorate level, ([Directorate Risk Register](#))

• **ISSR004** Climate Change, delays in decarbonising the Council fleet will result in the Council not achieving a reduction in CO2 emissions from its fleet and emission targets will need to be revised to reflect this.

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**Stephen Archer**  
**Director of Infrastructure Services**

Report prepared by Paul Gray, Fleet Manager  
4 June 2019
Briefing Note - Purchase v Lease

1 Background

1.1 Aberdeen City Council’s Fleet is currently owned, and it’s been 12 years since vehicles have been leased, the only exception to this are three ULEVs’ ordered this year using funding from Switched on Fleets which will be on Contract Hire.

1.2 We have a planned rolling programme to replace the fleet based on an agreed life expectancy of between 7-10 years utilising funding from the Capital Plan budget.

1.3 Each quarter an options appraisal is carried out which provides a comparison of Operating Lease, Finance Lease and Loan Pool Rate for outright purchase.

2 Appraisal Options

2.1 Outright Purchase is funded from the Capital Plan budget is the current approach, however the Capital budget for vehicle replacement has remained relatively static at circa £5m per year for 10 years. During this time the vehicle fleet has grown by approximately 90 vehicles as we have moved away from staff using their own vehicles and also established new approaches such as the Health and Social Care Partnership. Over that same period vehicle prices have risen so the number of vehicles £5m will buy today is substantially less than 10 years ago resulting in our vehicle age profiles being extended. Using capital funding to replace all vehicles in line with the currently agreed replacement lifecycles would require investment of £8.5m per year at current prices.

2.2 Outright purchase continues to be a popular method of acquiring vehicles and gives flexibility to extended/shorten vehicle life if required. Service users only pay for the maintenance, insurance and Road Fund Licence. Whilst the Council has to absorb the depreciation it does receive the residual value when the vehicles are disposed of.

2.3 Operating Lease – Through the appraisal process conducted with Finance colleagues this can initially appear to be the best option however, when we then allow for the differences in residual values, the variations in interest rates used by the lenders who underwrite the lease operation, the differences between the vehicle specification that we require and the specification of the vehicles that the quoted process relate to and the end of lease penalty charges then the differential moves towards our current approach where vehicles are purchased outright.
From mountain to sea

2.4 For example whilst the end of lease penalties/charges are not as high as they used to be, they still need to be taken into consideration. Pooling mileage values across a group of vehicles can be set high enough at the start to avoid excess mileage charges but allowances for damage and wear and tear are still charged at the end of the lease period. There is usually a requirement for the vehicle to have a minimum amount of MOT left and tread depth on the tyres all of which can add to the cost at the end of the lease period. The experience of the team is that the risk around these aspects is less when the Council owned vehicles are sent to auction.

2.5 In the comparisons of the approaches Finance colleagues work with us on the overall costs to Services. The current approach is that the borrowing costs for the purchase is dealt with corporately and therefore at a lower rate of interest than the market can typically access. A move to an operating lease would see this alter and Service users would have to pay the lease charges along with existing maintenance charges. Looking at one example would see the cost of a small sweeper move from £442 to £1612 per month. This would have to be fully reflected in the balance between the Revenue and Capital budgets in Services.

2.6 Finance Lease – A method of funding the use of, but not the ownership of the vehicle over a fixed period. Monthly payments are fixed for the duration of the contract and can incorporate a balloon payment to reduce the monthly payments. There are usually no mileage restrictions or excess damage charges, but the vehicle has to be maintained in a roadworthy condition by the hirer. The hirer would be responsible for the residual risk and reward, at the end of the period the vehicle is sold with a percentage, usually 5% going to the leasing company. The hirer can choose to continue using the vehicle under a secondary agreement.

3 Other options

3.1 Contract Hire – We hire the vehicle from a company for a predetermined period with agreed mileage for a fixed monthly charge. This can be with or without service/maintenance and repair but at the end of the period the vehicle is returned to the company. We have applied this approach for the ULEV vehicles.

3.2 Contract Purchase – As with contract hire the vehicles are provided at a fixed monthly cost over an agreed period and mileage but giving the option to purchase the vehicle at the end of the period. At the end of the contract you
From mountain to sea

have the choice to make a final balloon payment to purchase the vehicle or return it to the company.

4  **Wider Issues**

4.1 In considering the options available to us we also take into account the issues around our resilience by being at the end of a supply chain the flexibility of our own in-house workforce. We have 66 mechanics employed and living in our Aberdeenshire communities.

5  **Current Consideration**

5.1 We are working closely with Aberdeen City, Moray and Highland on a range of fleet and maintenance issues including Purchase v Lease. Highland moved to an operating lease model in 2012 and are in the process of moving back into a purchase model. Aberdeen City Council have also considered options and purchase is the approach they feel provides Best Value.

Briefing prepared by Paul Gray
31/05/2019
Telematics Project Update

Paul Gray
Fleet Manager
• Working in partnership to promote safe and efficient driving, resulting in
• Safer drivers
• Increased vehicle utilisation
• Lower operating costs
How It Works

VTU triangulates position using GPS network.

Data is transmitted to UKT servers over the mobile network.

Processed data is displayed on the UKT web based interface.
Benefits of the System

- Ease of use – Most features are accessible within 2 or 3 clicks
- Completely live interface – No need to refresh
- Full hierarchal permissions structure with full system admin for users with sufficient permissions
- Sites and geofences
- Snail trails, group snail trails and specialist vehicle snail trails
- Route planner based on real time vehicle location
- Driver behaviour monitoring including league tables
- CO2 emissions reporting, charts and graphs
Reports

The telematics reporting provide actionable insights to share with employees and management in real-time

Examples of Reports

• Utilisation Reports
• Activity Reports
• Management Reports
• Speeding Reports
• Distance/Journey Reports
• Idling Reports
• Environmental Impact Reports
Future Reporting Dashboards Format

Harsh Events vs MPG

- Average Daily MPG
- Total Harsh Events

Total Miles vs MPG

- Total Miles
- Average Daily MPG

Idling Hours

- Average Daily MPG
- Idling Hours

Driving Behaviour

- Harsh Acceleration Count
- Harsh Braking Count
- Harsh Cornering Count
Idling Hours

- Total Hours
- Idling Hours
Smarter Vehicles and Safer Fleets

• Improving driver safety by encouraging responsible safe driving styles
• Protect our drivers from false claims and allegations
• Provide a solution to support lone workers
• Help to reduce vehicle running and maintenance costs
• Expedite the investigation of vehicle accidents and incidents
• Assist with the improvement of resource programming
Thank you

Now for the live demo

aberdeenshire.gov.uk