



FLEET STRATEGY

2020 - 2030



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Foreword

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I am pleased to introduce the Fleet Strategy for Glasgow City Council with its focus very firmly placed upon supporting our frontline operations in the most cost effective and environmentally considerate way.

Our fleet is a vital component in delivering frontline services to the residents of Glasgow and for many, our fleet is the most immediate visual representation of the City Council's services, and therefore must demonstrate quality and efficiency.

Safety is and will continue to be paramount. I firmly believe that safety, quality and efficiency are complimentary and do lead to better utilisation and associated cost reductions. To achieve this we need a programme of continuous improvement where vehicle optimisation, flexibility and reliability are underpinned by a high quality, right-first-time maintenance regime. Environmentalists and transport practitioners are looking to the City Council to take the bold steps necessary to reduce our dependence on carbon fuels, and through our fleet replacement programme we will be leading on realising these aims and working towards our net zero commitment.

Challenges in the forthcoming strategy period will be to embrace new technology within our fleet, to support what are likely to be changes to working practices across many of our operational areas and none more so than in waste management where the "one touch" approach - from bin to recycling, without intermediate handling - will make significant demands on how our fleet and staff require to operate.

The continuing pressures on local authority budgets will require that we remain competitive in any market place and therefore must keep our fleet profile under constant review to maximise utilisation during times of austerity.

Many of our heavy vehicles are operated under the Department of Transport's operators licencing conditions and with that comes significant responsibilities to ensure 100% compliance. I believe we should commit to being in the "best in class category" of fleet operators and I have agreed that Glasgow City Council will now commence a programme of improvements for staff to be Institute of Road Transport Engineering (IRTEC) compliant and our fleet to achieve DVSA's "Earned Recognition" accreditation, within a 3 year period.

The success of this new strategy will be dependent on the support and cooperation of all employees who make use of transport services.

Our fleet, vehicle maintenance and repair services, and operational processes, need to become more efficient, and given the Council's recent declaration of climate emergency, we must also act now to reduce our carbon footprint. I believe this Fleet Strategy has laid down the framework to achieve these goals.

Purpose of the Fleet Strategy

The purpose of the Fleet Strategy is to directly support front line and associated operations by providing a comprehensive vehicle fleet for all aspects of Council services.

There are currently over 1,300 vehicles in Glasgow City Councils fleet across the council “family”.

This is made up of a diverse range of vehicles from small cars and car derived vans, light goods caged and tipper vans, tail-lift box vehicles, minibuses, roads and lighting maintenance vehicles (gritters and tippers), a range of bespoke skip and refuse collection vehicles and finally, our heavy articulated trucks/trailers. In addition, we have a further 800 items of heavy and hand held plant necessary to deliver our core services.

All, but a handful of our current fleet, are diesel fuelled with a small number of cars being battery electric.

The Council’s overall transport cost is in the region of £56,000,000 across the Council family with direct costs for leasing, servicing and maintaining our fleet at £24,000,000 per annum.

Although we operate a sizable fleet, the geography of Glasgow is such that we are not a high mileage operator with the average annual mileage of 12,000 miles per annum. Our fuel bill is in excess of £5,000,000.

Effective delivery of our fleet strategy will support our front line services in achieving the following objectives;

- Safe operation of our vehicles for employees, contractors, other road users and the public to meet our statutory commitments.
- Reliable, cost effective and consistent frontline services.
- Minimising the Council’s carbon footprint and leading on our carbon neutrality and net zero commitments.
- Maximising the Council’s waste recycling performance through introducing improved logistics via new scheduling and vehicle operational technologies.

Our overall transport cost are broadly as follows:

Leasing & Contract Hire = £9m

Licences and Insurance = £1.7m

Fuel Costs = £5m

Servicing & Maintenance Costs = £4.3M

*** Abnormal Costs = £4m**

*** Abnormal costs include, accident damage, use and misuse not covered under standard wear and tear maintenance, damaged tyres.**

What we want the Fleet Strategy to achieve

We will be **successful** in delivering our fleet Strategy when ...

- We facilitate the procurement and modification of high quality vehicles that meet operational demands whilst maintaining best value.
- We have processes in place to provide safe, efficient and reliable transport systems for Glasgow City Council whilst optimising fleet availability.
- We identify and implement a continuous improvement programme for increased efficiency through savings and income generation.
- We have a highly trained and qualified workforce capable of meeting the challenges of innovative and emerging technologies.
- We have alternative fuel solutions powering our fleet that support our operational objectives, significantly reduce our carbon footprint and advance the council's drive towards net zero emissions.

We will **achieve** in delivering our Fleet Strategy by...

- Collaborating with national, regional and local partners.
- Effective training and development of our workforce.
- Using reliable, informative and “real-time” information.
- Technological solutions.
- Effective communications.



How will we achieve it?

Intelligent Client Solution:

The Council has recently established a new Transport Team to coordinate and manage the wide range of Council fleet services and associated Council family organisations that require a fleet to deliver core services. Budget oversight for all transport provision will be managed by this new team as will the safety, maintenance, technical standards and regulatory compliance of all council fleet services. The outcomes anticipated are economies of scale, parts homologation, and a structured long term procurement and fuel strategy that will see the Glasgow fleet transformed and a fleet to be proud of.

Vehicle Lifecycle

Vehicle Groups	Replacement Criteria
Cars	7 years or 125,000 miles
Vans (car derived)	7 years or 125,000 miles
Minibuses *	10 years or 250,000 miles
Light Goods *	10 years or 250,000 miles
Light Trucks *	10 years or 350,000 miles
Heavy Goods *	10 years or 500,000 miles

Specialist Vehicles will receive mid-life refurbishment: e.g.

Gritters: Mid-life refurbishment, Chassis, Body – new Spinner.

RCV's: Mid-life refurbishment, Chassis, Compactor – new Hoist.

Tower Lift: Mid-life refurbishment, hydraulic / lift.

*Subject to alternative fuel developments consideration will be given to replacement earlier than the criteria should Electric / Hydrogen infrastructure / production supply be accessible to GCC at preferential rates.



Method of delivery:

Procurement and modification of high quality vehicles that meet operational demands whilst achieving best value.

We will be able to select the majority of these vehicles from existing Scotland Excel, Crown Commercial Service Contracts or our own DPS frameworks and the cars, vans, light goods and HGV chassis will be from mainstream global suppliers.

The evaluation of the most appropriate vehicles to select will include purchase costs, whole life running costs, spare parts and warranty provision, environmental credentials and the best match, achieved through operational evaluation, to meet the client department's specification and to ensure vehicles are fit for purpose.

This strategy will adopt an outcome based, rather than vehicle/technology based specification. e.g. Our RCV's specification require that the vehicle can carry a maximum compacted payload, across the topography of the city and in uninterrupted service with minimum downtime for ongoing maintenance, inherent with all recognised safety features and with simplicity and robustness of ancillary equipment.

The uniqueness of our front line service vehicles is generally the ancillary equipment required for waste and road maintenance services. This will include refuse collection vehicle compactors, bin hoist and a range of specialist vehicles for roads and lighting maintenance including gritters, sweepers - both large and small. The vehicle chassis will, where possible, be standard to ensure parts homologation, ease of maintenance and competitive vehicle/parts pricing.

The base vehicle price alone will not be the determining factor during the procurement process, where whole life costing will be given a greater proportion of the assessment, prior to purchase. Where possible vehicles will be assessed, via demonstrators or with other fleet operators, to ensure technical specification compliance.

Across the range of vehicles required for delivering core Council services, continual developments of bespoke and specialist solutions, will be necessary.

Vehicle replacement parameters need to be maximised to achieve maximum service life from the vehicles. Due to the geography of the City Council's operating area, our fleet does not operate to excessively high mileages, however many of the client service duty-cycles are onerous on the ancillary equipment, particularly for waste management and also for roads maintenance vehicles. The Fleet Strategy replacement programme will now provide for these vehicles to undergo a mid-life refurbishment, which will extend the life of the chassis and importantly retain the primary functional purpose of the specialist vehicle in front line, as new, condition.

To ensure we maintain the availability, reliability and quality of the new fleet, the replacement programme will now be structured to create a staggered programme to maximise front line availability, simplify the inspection regime and annual MOT test programme. This approach will eradicate the client department fleet age concern issues and avoid significant mass staff re-training and familiarisation requirements. As our fleet modernises, our frontline staff need to be proficient in maximising the use of the asset and to ensure that competence, we will adopt a perpetual programme of continual training and personal development ensuring our staff are familiar and confident in the use of our fleet vehicles.

How we use and maintain our vehicles is significantly more important than the age of each vehicle in determining the quality of the fleet, however with consideration to the age profile of certain vehicle types, it will be necessary to introduce a number of larger vehicle intakes to make a step-change in the age profile of our vehicles. A target of having an age profile of no more than 5 years old should determine the scope of an initial batch of new vehicles. Following this, the procurement strategy should provide for an influx of 3 new vehicles per week, on an ongoing basis, and ensure the contractual arrangements provide the flexibility to capture emerging technologies and incorporate these into the fleet.

Reliability and availability:

The reliability and availability of front line vehicles needs to be high and as near to 100% as possible. Fleet spares are therefore necessary to support a regulatory inspection and maintenance regime. Spare vehicles will no longer be retained by the client departments and the Transport Services function will be restructured to provide a “fully managed” service to all Council family clients. This will be equivalent to the high level of customer services normally experienced from fleet hire providers where any vehicle requiring inspection or maintenance will be substituted with an equivalent vehicle to ensure front line services are not interrupted. This is a fundamental change to current working practices and will be far more transparent than the existing process.

Transport Services will now provide a turnkey service based on a Service Level Agreement with all client groups where regulatory compliance, inspections, maintenance, annual test and repairs will be provided as a one-stop shop and no client department will be required to engage with the fleet support aftermarket. This revised process will place the responsibility for 100% availability upon the Council's Transport Services function who will manage all service, repairs and replacement budgets.

In a sophisticated smart city, significant benefits are generated from employing technology to locate and monitor the effectiveness of the resource and to be able to react “real-time” to changing daily network conditions. The Council policy will be that all vehicles will be equipped with Telematics / GPS tracker solutions. The data generated will permit continual development of optimum fleet solutions, maximise the effectiveness of daily service, minimise running and abnormal repair costs, such as accident damage and the increasing claims culture, and assist our operational staff to be confident in the fleet vehicles and that full and timeous support service are on-hand.

To complement the new fleet and the commitment to 100% availability, the current dependence on external support contracts will diminish, and Transport Service will be providing front-line mobile based support 24/7 365 days a year and increasing in-house skill necessary to maintain this new generation of fleet vehicle.

To support a state-of-the-art fleet we require facilities commensurate with best practice and design, currently in operation in many private sector fleet maintenance facilities. The Council requires to invest in the workshop and support facilities necessary to maintain the current fleet and these new vehicles. The City Council should be able to inspect, service, maintain and repair our entire fleet, including our “O” licenced heavy fleet, which is of sufficient size to justify self-sufficiency and retrain and upskill our own maintenance staff. To achieve DVSA's Earned Recognition accreditation, the ideal scenario is to be able to undertake all work including MOT presentation in-house. MOT facilities also have significant commercial opportunity value with a recognised shortage of MOT test facilities in the West of Scotland. Our operating depots require to be reorganised to simplify and enhance pre-service vehicle checks, light-touch maintenance and vehicle cleaning and washing with revised parking and traffic management schemes designed to complement these upgrades.

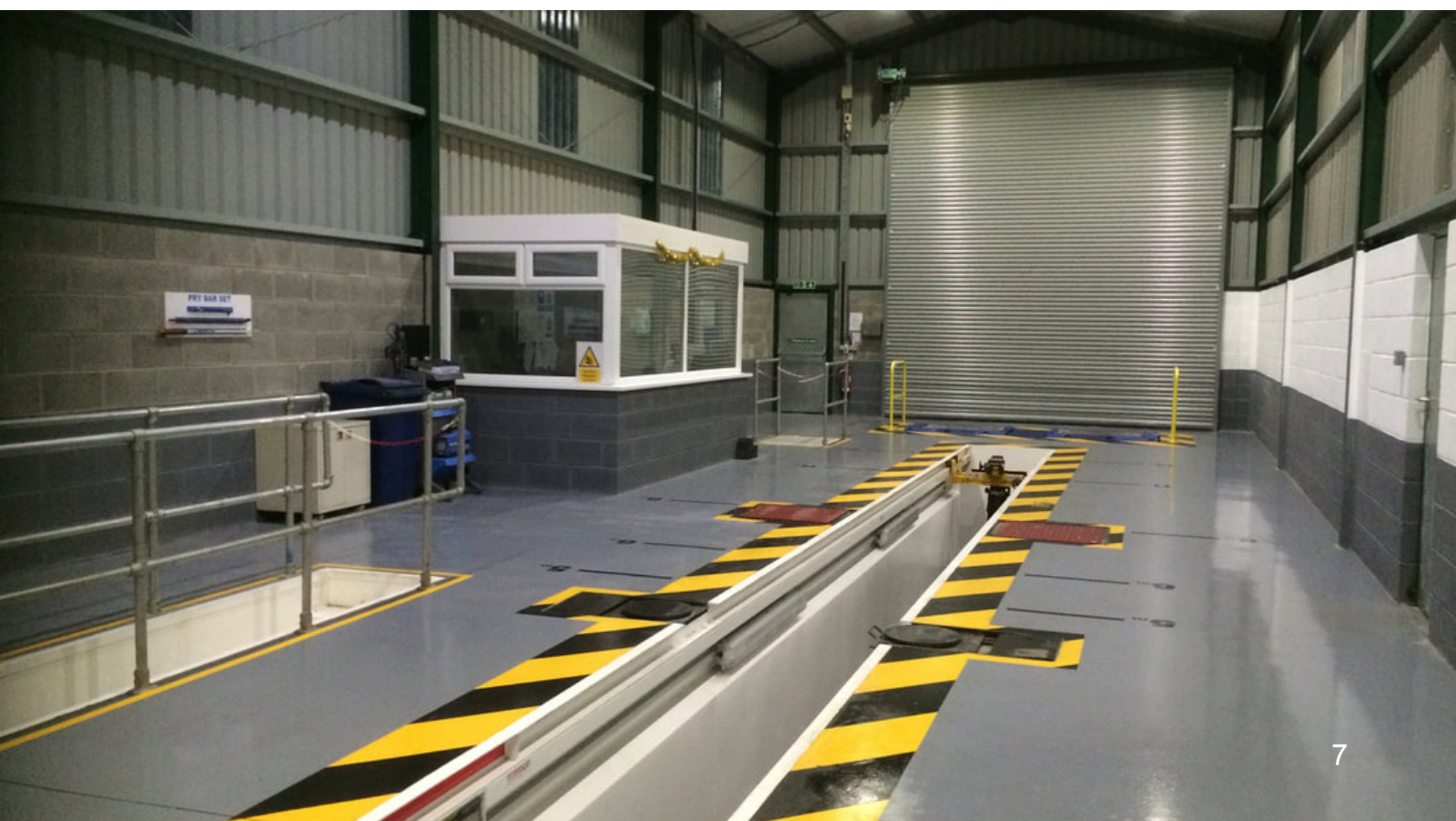
Continual Improvement / Commercial Opportunity:

Glasgow City Council already works with other local authorities and associate partners and agencies to continue to be abreast, or lead, in the implementation of new technology solutions.

Our Transport Services will provide an operational logistics support role to all client departments to ensure the primary users are aware of innovations and new technology solutions which maximise use of the fleet, minimise operational costs and always make the “job” safer and easier.

Having accurate information to hand is paramount to maximise the efficiency and utilisation of frontline vehicles and sophisticated scheduling technologies will be introduced to supplement the “real-time” reporting of key information, when the fleet is in-operation. By way of illustrating what this might mean, having immediate knowledge of the location and status of our bus fleet will enable us to allocate additional trips to maximise the use of the fleet. Another example might be the more dynamic work allocation of our RCV fleet, where the principle values for planning and management of our waste streams are mainly weight and segregation. By employing GPS location tracker, axle weight and hoist activation sensors, having immediate knowledge of the vehicle’s current payload weight and the number of hoist activations undertaken in each street / area, on a real-time basis, provides that key information that will permit the real-time management of the domestic and commercial bin network we support via a central control of our fleet, on a 24/7, 365 days a year basis. The purpose of our fleet is to support the Council’s primary and statutory commitments for cleansing, waste management, roads, lighting, educational and social work transport needs and Glasgow City Council is aiming to be in the “best in class” category of fleet operators with technology solutions to ensure our services are not only efficient, but primarily, they are also safe.

Through this approach, the efficiency gain will support the development of new commercial opportunities, presently dominated by private sector operators.



How will we become a Zero Emissions Fleet?



The Glasgow City council fleet currently operates primarily using diesel fuel.



Both UK and Scottish Government have given dates where the sale of new diesels will no longer be permitted. The City Council already works with other local authorities, associate partners and agencies to ensure we continue to be aware of or where appropriate take a lead role in development and implementation of new fuel technology solutions.

This strategy establishes a framework for Glasgow City Council to achieve a ZERO EMISSIONS fleet within the timescale of the strategy period.

On 16th May 2019, the City Council declared a climate emergency. Continuing to consume fossil fuel is unacceptable and the City Council has led the way in Scotland by introducing the first Low Emission Zone, initially to achieve compliance for buses, with other road users to be brought in-line by 31 December 2022.

Following this, the City Government has committed to transform Glasgow into the UK's first net zero city and the Fleet Strategy will set the framework to achieve that for its own operations.

Glasgow City Council, as Scotland largest local authority, must take a leading role and determine its long term alternative fuel strategy.

The vehicle/car market is already producing competent battery electric cars and vans which are a significant vehicle type in the Council family fleet and meet the needs of many of our duty cycles.

Emerging plug-in Hybrid technology, with range extenders, will also be suitable to meet the more demanding distances or duty cycles, however the age and condition of the electrical infrastructure in our estate will require upgrading to support high-speed charging.

The development of new fuel technologies and a commensurate improved range of vehicle types operating on these solutions, continues to be dynamic. However adopting a long term approach, at this time, the only realistic and genuinely emissions free sustainable fuel solution is Hydrogen. When Hydrogen is the fuel source, the output is just water when exhausted into atmosphere.

As migration to a low/zero carbon operation is a protracted and complex process, the Council should determine, that emerging from this 10 year strategy period, all future vehicle procurement exercises should specify Electric or Hydrogen as the preferred fuel source.

The current cost of purchasing and operating Hydrogen vehicles and access to the volume supply needed, currently means that Hydrogen fleets are hugely expensive to operate.

As with any emerging technology, volume production and general acceptance will drive cost down. The City Council should be bold and lead in creating the demand that is required. The west of Scotland and Glasgow City Council specifically, is ideally placed to lead the development of mass Hydrogen production for the Scottish market place. Other small scale projects are underway, however they do not have access to the transport fleets needed to realise economies of scale to achieve diesel parity on cost of operation.

In that regard, Glasgow City Council has a unique advantage with the Glasgow Recycling and Renewable Energy Centre's (GRREC) capabilities to generate "green" power, at the Polmadie site, which would be supplemented with surplus renewable "constrained" power and through electrolysis, start producing Hydrogen.

Development work has already started with Scottish Government/Transport Scotland, Scottish Cities Alliance, Scottish Power and other power suppliers, a wide range of agencies and also the Scottish SME specialist vehicle manufacturing supplier base. To stimulate the marketplace, the City Council should develop in-principle agreements with big fleet operators, perhaps bus operators such as First Buses, Stagecoach, McGills and other large fleet haulage operators to translate this concept into a workable, financially viable and sustainable solution.

This strategy identifies the type of vehicles and illustrative duty application that we should model our future fleet procurement on:

Alternative Fuels

Vehicle Groups	Alternative Fuel Solution / Criteria
Cars / Vans	Electric – Light Duty
Cars / Vans	Electric or - Plug-In Hybrid / Range Extender – Heavy Duty
Minibuses	Electric
Light Goods	Electric – Light Duty
Light Goods	Electric or Plug-in Hybrid / Range Extender. Heavy Duty
Light Trucks	Electric, or Euro 6 with HVO or equivalent for (Heavy Duty PTO) *
Heavy Goods	Hydrogen Dual Fuel *

PTO = Power Take Off to drive hydraulic systems on truck for compactor, gritter etc.

HVO = Hydrogenated Vegetable Oil.
(Carbon Free, although not intended for volume consumption as price premium).

* BEYOND 2030 ONLY ELECTRIC OR HYDROGEN POWERED VEHICLES should operate in the Glasgow Council Fleets

Key Milestones / Measures

Fleet Upgrade:

- 1 Gritters – 12/18 tonne, Dual fuel Hydrogen, delivery to commence Qtr. 2/2020
- 2 RCV's – 12/22/26/32 tonne, 5/10/12/14 tonnes payload, Dual fuel Hydrogen, delivery commence Qtr. 3/2020
- 3 Car Fleet, Electric, delivery to commence Qtr. 1/2020
- 4 Road Sweeper / Precinct Sweeper, Electric, delivery to commence Qtr. 3/2020
- 5 Tower van (lighting), Electric, delivery to commence Qtr. 1/2021
- 6 Other types to achieve and thereafter maintain an age profile of < 5 years.

Staff Development:

- IRTEC accreditation for technical staff
- Annual CPC compliance
- Personal Development and Technology Skills Training
- Upskilling for in-house self-sufficiency, commercial opportunity
- Pride in Glasgow's Fleet

Policy Development:

- Reverse Parking Policy (Announce Sept 2019 / full implementation January 2020)
- Tyre Policy
- Driver First Time use and Pre-service checks
- Drugs and Alcohol Policy
- Service Level Agreements – All council family activities

Fleet Availability:

- 100% required
- Fully Managed Service
- 10% Operational and Maintenance Spare
- < ½% lost mileage
- 100% Right-First-Time Compliance
- Upgraded depot checking / cleaning solutions.

Fleet Utilisation:

- Safety Focussed
- Significant productivity improvement, using fewer vehicles and maximising utilisation.
- Reduced incidents and accident
- Commercial Development Opportunities

Environmental Credentials:

- Net Zero Emissions Fleet. (By 31/12/2029)
- Green Hydrogen Producer
- Diesel Cost parity – or better.

Regulatory Compliance:

- “Earned Recognition” Operator by 2022.
- 100% First Time MOT pass



*'Reducing
emissions
for the
benefit of
current
and future
generations'*



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