Taxi Tariff Review

REPORT

Review of Taxi Tariffs in the City of Glasgow

17 May 2024

Appendix 2

Content

Executive Summary

This report calculates the change in costs of operating a taxi in Glasgow. It concludes that the costs of production have increased by 9.72% over the period between September 2022 and February 2024. The calculated change in costs has been applied as a recommended increase in tariff, see table i, overleaf.

The cost change is shown as a percentage figure for the entire period of the review. It does not relate to the period of 1 year. The cost change is different to the rate of consumer inflation (CPI) and can not be compared directly. The calculation is based on cost elements agreed in previous reviews, and their update discussed below. This report includes revisions to the measurement of vehicle cost, LEZ compliance, fuel cost, and driven miles. It has been developed with support from taxi industry representatives.

In common with any calculation based on mean values, many real life experiences will differ as a result of operational circumstances. The carriage of more passengers over greater distances will result in a higher income than would be experienced were fewer passengers carried and/or shorter distances travelled. Further variations will result from differences in driving style, vehicle maintenance, and the age of a vehicle.

The application of the change as measured will ensure that fare box income increases in line with the calculated percentage change in cost. This increase is applied to include changes in incremental costs, for time and distance, and specific changes to individual tariff elements. These include a recommended change to the rate applied to late night charges, to operate between 21:00 and 06:00 to encourage additional supply of taxis to support the Night Time Economy. A change is also proposed for the timing of the Christmas and New Year surcharge, which standardises start and end times for night time supplements.

The report introduces a new term ‘effective vehicle life’ to replace the previous ‘vehicle cost depreciation’. The measure relates to the period over which the cost of a new vehicle declines in value from new purchase price to zero. This does not preclude the use of older vehicles in the fleet where they can satisfy testing and regulatory requirements. The measure ensures the ability for a Glasgow Taxi operator to update their vehicle regularly by incorporating the purchase price of the vehicle in the tariff calculation. The current effective vehicle life is based on eight years from new, the use of eight years remains unchanged from previous reviews.

Vehicles remaining in service beyond their effective vehicle life can continue to create an income without experiencing depreciation costs, as these will have been covered in their earlier life. Any financial benefits would, however, likely be offset, at least in part, by the increased costs of maintaining and servicing an older vehicle.

The report approach is consistent with the requirements of the Civic Government (Scotland) Act (1982).

Tables i, ii:Recommended tariff change and updated fares table for application[1]

	Current			Proposed	
FLAG FALL.					
Flag Fall Charge	To be increased from	£4.00	to	£4.40	/engagement
Flag Fall distance unit	To be increased from	886	to	889	Yards /engagement
Flag Fall time unit	To be increased from	166	to	167	Seconds /engagement
INCREMENTAL DISTANCE					
Distance charge	To remain unchanged at	£0.30		£0.30	/increment
Distance increment	To decrease from	198	to	179	yards /increment
INCREMENTAL TIME					
Time charge	To remain unchanged at	£0.30		£0.30	/increment
Time increment	To decrease from	42	to	38	Seconds /increment
EXTRAS					
Soiling Charge	To increase from	£42.00	to	£46.00	/ incident
Night Time Charge	To increase from	£1.40	to	£1.50	/engagement between 21:00 and 06:00, except as below.
Christmas / New Year charge	To increase from	£2.50	to	£2.70	/engagement commencing between 21:00 on the 24th and 06:00 on the 27th December; and between 21:00 on the 31st December and 06:00 on the 3rd January.

(PROPOSED)

GLASGOW CITY COUNCIL

Civic Government (Scotland) Act 1982

Current Taxi Fares

Maximum fare for a distance not exceeding 889 yards or for time not exceeding 2 minutes 47 seconds (or a combination of parts of such distance and such time) £4.40

For each additional 179 yards or 38 seconds £0.30

Fares for waiting:- for each completed period of 38 seconds £0.30

Fares by time:- Fares by time must be the subject of special agreement with the hirer. These fares shall apply during the week and on Sundays.

When a taxi has been requested to attend at any place to uplift a hirer, the taxi meter may be set to the "hired" position prior to reaching that place provided that the fare showing on the meter does not exceed £4.40 at the time the taxi arrives at the place.

Soiling charge (only being appropriate in relation to an anti - social act) £46.00

EXTRAS:-

An additional charge of £1.50 shall be payable on all hires commenced after 21:00 hours, and before 06:00 hours, except as below.

An additional charge of £2.70 shall be payable on all hires commenced after 21:00 hours on the 24th December and 06:00 on the 27th December; and between 21:00 on the 31st December and 06:00 on the 3rd January.

[1] For night time surcharge, the measurement of time period commences at 21:00 precisely, and ends at 05:59 and 59 seconds.

1. Review

A taxi tariff forms the basis of a taxi fare, being the amount paid, by the travelling public, for the use of a taxi in any given licensing authority area, in this case in Glasgow. The tariff is a form of regulation applied to the taxi industry, governed by the Civic Government (Scotland) Act (CGSA / the act). The act provides for a regular review of tariff, of which this report forms a part. Such reviews allow the regulator, Glasgow City Council (GCC), to make an informed decision on the appropriate rate charged via the tariff, and apply changes to that rate in line with any change to the costs of production, being the cost of supplying a taxi journey.

A Taxi Tariff will generally provide for the calculation of fare on the basis of a sum comprising distance travelled and time taken, in completing a taxi trip. A number of additional charges may also apply to this summation to reflect additional elements of the trip, as may include: late night operation; a higher initial charge, also known as flag drop, often associated with taxi waiting times on a taxi rank / stance; and fees for cleaning, following travel sickness; amongst others.

The act provides for the increase in a tariff to reflect measured changes in the costs of production, it does not stipulate any precise method for that measurement. This said, a common approach, adopted widely, has been the use of a Taxi Cost Model, a comparison between a start (baseline) and end point (target). The model being based on the measurement of industry specific costs, also known as an Industrial Price Index (IPI). It is important to note that the use of an IPI approach will result in measured changes that differ from the rate of consumer price inflation as the constituent elements differ. It is therefore not possible to compare taxi price inflation with the commonly defined rate of consumer inflation (CPI).

The Glasgow Taxi Tariff has been subject to a regular review on the basis of a cost model approach that, in turn, includes a review of the rate of changes to the costs of production. The Glasgow model splits between a top-down approach, based on the assessment of changes in prices alone, and a bottom-up review, which undertakes a more detailed assessment of changes in the market as may affect the structure of cost assessment. This document sets out a bottom-up review of the market.

In drawing conclusions it should also be noted that taxi regulation is a form of market intervention affecting the operation of the market itself. Regulatory interventions, also referred to as regulated competition, can be at odds with other forms of competition, including that between other transport operators in the city, who typically operate in an openly competitive market. Differences between open market and regulated competition can lead to market anomalies that will also need to be considered in drawing conclusions. These are addressed in detail in the review and conclusions sections of this document.

1.1 Operator Survey

In order to fully reflect the circumstances of supply we have undertaken a survey of operators across Glasgow. Invitations to an on-line survey were circulated via Glasgow Taxis Ltd. (GTL), Unite the Union Taxi Branch, and the Glasgow Taxi Owners Federation, each being recognised by the city as representative groups for the taxi industry.

A total of 325 valid responses were received, as detailed below, and have formed the basis of changes to the review methods applied[2].

1.1.1 Underlying approaches, the use of a Taxi Cost Model

The survey provided an opportunity to review the approaches previously adopted, as well as determine changes in behaviours and circumstances of supply. The survey detailed and asked whether the use of a taxi cost model was still considered appropriate to the needs of the city.

Table 1, initial response to modelled approach

In recent years, changes in Glasgow taxi tariff have been based on a measurement of the costs experienced by the industry. How appropriate do you feel this approach is to determining tariff increases?	
I think the approach is reasonable	49.27%
I think the approach is reasonable but may have some difficulties	29.27%
I think there are significant problems that may harm the industry	17.07%
I think the approach is NOT appropriate to use in Glasgow	4.39%

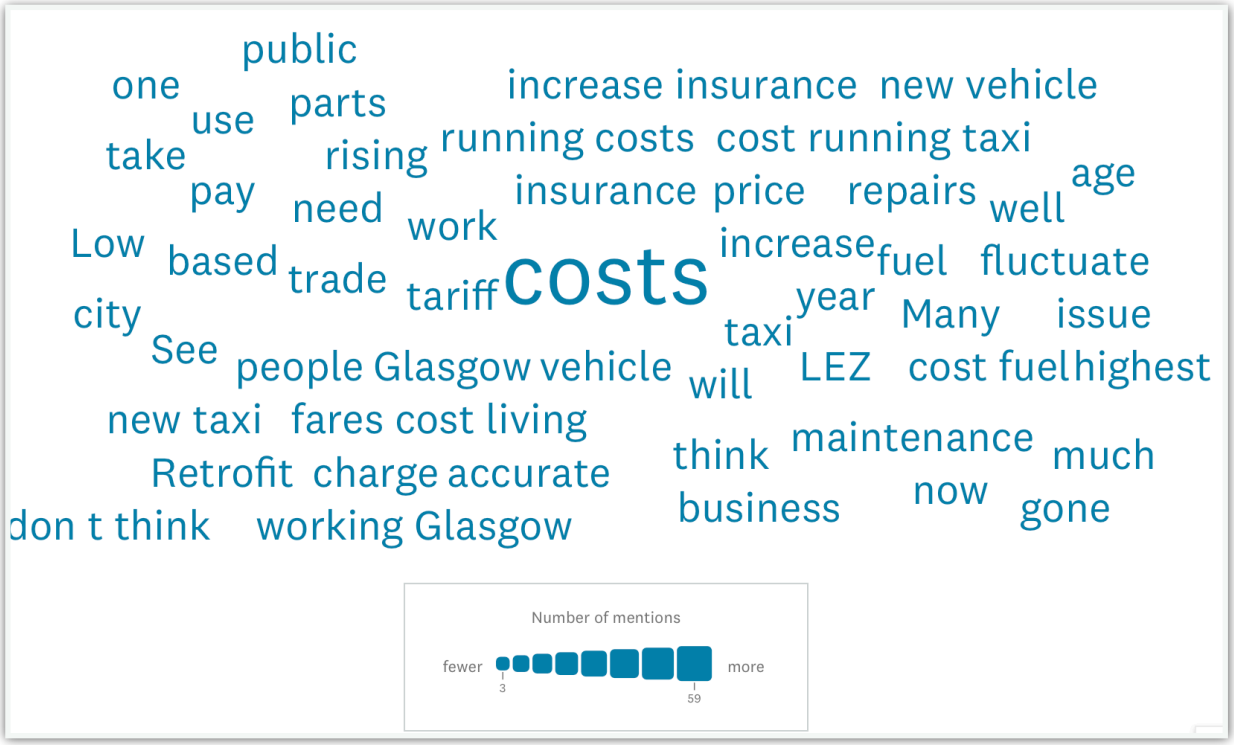
A total of 78% of all responses suggested they felt that the cost model approach was reasonable, with 29% suggesting that some difficulties may exist, and a further 17% identifying significant problems. 4.4% of responses felt the approach was not suitable for use in Glasgow.

Given that a majority of responses felt the cost model approach to be reasonable, albeit with some concerns, the research team felt it appropriate to update, rather than replace, the cost model approach as applied to the city. This included the updating of the elements within the model where concerns were expressed, detailed below. Individual respondents were also invited to expand on the general concerns they had, using a free form submission, illustrated by the word cloud below.

By far the greatest concern related to an overall view of cost increases, and an overall even spread across cost elements, requiring a more detailed assessment of each, discussed below. Detailed comments were also considered in the interpretation of cost changes, set out in more detail in the review and conclusion sections, below.

[2] A small number of invalid responses were also received but not included in the assessment. These included responses without any content, those with unrelated content, and those who stated they were not Glasgow operators.

Figure 1, word cloud, respondent general concerns



1.1.2 Core cost elements

The tariff cost model has been based on a series of measured cost elements, or factors of production. These reflect the costs experienced by a typical Glasgow Taxi Operator. The list addresses changes to the primary costs of production, across a common set of factors that have been applied and updated over multiple previous reviews. Insofar as each operator, and each vehicle, will experience a unique operating pattern, driving different numbers of miles over different roads, and in different circumstances, it is not possible to include every single element of production. Nor, indeed, would it be desirable to do so, as the levels of change to a large list of component parts, if all could be measured, would result in a widely variable measurement that would be incomprehensible where applied directly to tariff. A representative sample approach has therefore developed over time, and is in wide application for tariff reviews. In Glasgow the representative sample comprises:

Earnings costs

Variable costs

- Fuel cost

Fixed and semi-fixed costs (operating)

- Vehicle purchase
- Vehicle parts and maintenance
- Taxi Insurance
- Dispatch

Fixed and semi-fixed costs (infrastructure)

- License costs

A distinction is drawn between variable and fixed costs. Variable costs are those directly linked to the number of miles driven, such as the cost of fuel. Fixed costs are those that must be covered regardless of the numbers of miles driven, such as the cost of a taxi license. Some costs can also be defined as 'semi-fixed', as for example insurance, where the cost rate may change, over time, to reflect driven miles, for example where an insurance cost may increase in line with a declared increase in miles driven; but remain static over the course of a year, without increase where more miles are driven in a day or without decrease where fewer miles are driven. As these remain unchanged for an extended period, eg: between insurance renewals, rather than altering on a daily basis, they are calculated as fixed for the purposes of this review.

Earnings costs are also included as a discrete, self standing, measure. This element provides for the payment of drivers and is linked directly to changes experienced in comparable occupations. In so doing a driver's take home income can increase in line with changes seen elsewhere in the workforce. The inclusion of a separate earnings element does not guarantee a particular level of take home income, and will fluctuate in line with the numbers of trips made and farebox income, but will rather ensure that, where all other costs are covered at a typical / average level, take home pay will also also reflect changes in comparable professions.

The basis of the taxi cost model, its approach, core elements, and underlying assumptions, is subject to ongoing review - the bottom up survey, including this one. Each of the cost elements described has been reviewed, including as part of the operator survey, which contained a series of questions[3] intended to validate or update the cost factors experienced by the trade, discussed below.

1.1.2.1 Underlying methodology

Previous assessments have been based on the measurement of baseline and target costs, and the measurement of any changes in the period between baseline and target. The approach is common in many cities, and well established in Glasgow having been adopted and applied over decades.

The presence of a standard modelled approach does not equate with a lack of change, with the Glasgow model having been subject to a series of significant updates over its life, primarily arising from bottom-up reviews. Previous reviews include updates in line with changes in the taxi market, the update of data sources and measurement methodologies.

Overall 68.75% of all responses were content with the existing approach, with 33% suggesting that the choice of factors and/or their measurement may need to be updated. 18% of respondents felt that the existing model should be replaced by a new system altogether, though comments provided by this group tended to highlight specific and significant cost increases to items already contained within the cost model, rather than

[3] From question 19 et seq.

alternative approaches to the model itself. Comments on the overall approach were entered, and have been acted on as described below, with subsequent survey questions and responses providing a more detailed review of the individual elements used.

One comment specifically stated that the tariff review used a formula that, '*apart from a small minority, nobody knows how it works*'. This has led directly to the recommendation that a single page summary of the approach taken, an overview of the tariff formula, and direct conclusions also be reported, and made directly available to the trade. This is included as the executive summary of this report.

1.1.2.2 Earnings Costs

The measurement of earnings costs has been based on the use of an ONS factor over multiple reviews to date. The measure allows for earnings to be tracked against comparable professions. The cost was identified as a self standing factor over the past decade, having been included as a 'remaining income' measure prior to that point. The identification of earnings as a discrete cost permits its direct inclusion in the calculation of tariff, and a level of reassurance that earnings would maintain comparability to similar professions. This said, it need be noted that the inclusion of (any) discrete cost element remains in proportion to the operating pattern of any one taxi. In effect the calculation is based on the average or mean operation within the fleet. A taxi driver operating more trips or achieving longer distances than the average driver, can receive a higher level of fare box income, and likely a higher take home income as a result. Those operating fewer miles than the mean, would be likely to receive a lower take-home income. Effectively as no one driver experiences exactly the same circumstances as any other, no one diver's take home earnings will be the same as any other.

63% of respondents considered the approach appropriate, while a further 21% considered the approach appropriate while raising questions in relation to the source of information. 16% of respondents considered the approach to be inappropriate, with a number of comments highlighting that drivers actual earnings varied to reflect both changing shift patterns, and the impact of other suppliers on points of key demand, including the night time economy.

It is important to note that the actual earnings of any one driver can differ significantly from that of another. It is also true that the numbers of trips and driven miles has been significantly affected by the presence competitors in the Glasgow market. Both of these factors will have an impact on day-to-day takings (fare box income), while changes to both have been taken into account by the inclusion of a miles driven calculation, set out in more detail in section 2, below.

1.1.2.3 Fuel Costs

The existing measure of fuel cost is based on published figures, including the primary use of the AA fuel cost index for Scotland. 79% of all responses indicated the current

approach to be appropriate for inclusion using the same measurement methodology as previously applied. The survey also suggests that a majority of respondents vehicles remained powered by Diesel. Further comments were made in respect of vehicle mileage, with an update to vehicle driven miles recommended, discussed in section 2.2, below.

The last review undertook an assessment of the changing use of fuels in the Glasgow fleet, quantifying operating costs specific to fuel, though is it is notable that this cost has been volatile and subject to significant fluctuation in the period since the last review. The measurement of fuel prices over a period of volatility requiring the measurement of changes on a month by month basis, as recommended in the last review, and set out in detail below. In this review we recommend the continued use of an official third party survey - the AA fuel price index for Scotland, to measure the price of Diesel and Petrol.

It is also noted that the cost of EV charging has been subject to volatile changes over the same period. Of the survey respondents with electric vehicles, a significant majority (81%) indicated the use of their own domestic supply as their primary electric fuelling point. This has therefore been adopted as the primary electric fuel cost. We recommend the use of domestic energy data, which we have sourced from SSE/OVO, for the measurement of electricity cost, on the basis of their standard variable tariff, measured on a month by month basis in line with earlier recommendations associated with price volatility.

The use of alternative low emissions fuels also appeared in some survey responses, particularly the use of LPG, though it has not been possible to ascertain the precise number and conversion types. Insofar as all of the reported LPG vehicles in the Glasgow fleet have been converted from traditional liquid fuels, and most relate to vehicles beyond their effective vehicle life, none can be assessed as OEM rated vehicles.

Vehicles converted to the use of LPG can vary widely in terms of fuel efficiencies, with an added difficulty that LPG fuels can have lower calorific values than Diesel or Petrol, approximated at around 15% lower by the UK retailer Motorway; and 25% lower by the Australian automotive manufacturer PrinsLPG. Insofar as no standardised fuel efficiencies can be determined for LPG we recommend that the fuel type is not included in the fuel cost calculation. This does not exclude their inclusion in future tariff reviews, which we recommend be considered at the point of next bottom-up review; but only where LPG feeling systems are supplied as OEM vehicles, with the associated manufacturer fuel efficiency measurement, and represent at least 15% of new vehicle purchases.

1.1.2.4 Vehicle Purchase Costs

Taxi vehicle purchase costs remain one of the most significant costs of production. A new taxi is an expensive investment, while vehicle requirements including a limitation on the types of vehicles that may be used in the taxi fleet, can increase the cost of of this element above those seen in parallel and similar transport services, including the private hire car fleet.

The existing approach is based on the desire to maintain an up to date fleet in the city, based on the calculation of the mean price of a new vehicle depreciated by a period of eight years. Depreciation is included to reflect the fact that a taxi is an occasional purchase, with an 8 year period included to approximate an effective vehicle life for front line service in the fleet. Effectively that the cost of the vehicle could be recouped after eight years in typical service. This does not preclude older vehicles remaining in the fleet, nor does it require operators to purchase brand new vehicles, but it is intended to allow for this pattern of replacement to be possible. Importantly vehicles beyond this age, being those beyond their effective vehicle life, are assumed to have no residual value.

At the time of review 45% of the fleet were less than 8 years from first registration. Of the younger fleet, Mercedes based vehicles had the greatest representation in the fleet, a majority of which were Vito vehicles, other vehicle types including the LEVC TX electric vehicle, Ford Procab, M8, TX4, and E7.

For the purposes of calculation, taxi purchase costs are depreciated over an eight year life, from new. For a majority of reviews it has been assumed that vehicles are replaced on a like for like basis, though changes in the models available has affected this assumption. Recent reviews moved from like for like to a nearest equivalent approach, while the last review noted that as only one model remained available, comparisons needed to be based on the new purchase of this vehicle type alone.

The inclusion of a defined period of depreciation is long standing, while the recent changes to nearest equivalent and vehicle availability have been approved in previous analyses. 67% of survey respondents considering the approach to be appropriate, with a further 15% considering the approach reasonable but seeking additional sources of data, in part reflecting a lack of new models available to the fleet. A further 18% considered the factor needed updating.

For this review it is noted that the LEVC TX remains the only new vehicle model directly available to the Glasgow market. There are no current alternatives available which might otherwise have been considered as nearest equivalents. Whilst we understand that a new taxi model is available to be reserved, at the time of writing, this was not available for inclusion at the target date of the tariff review. It is likely that the new model will be in operation for the next tariff review, its inclusion will need to be considered in the next, rather than this, review.

A further cost factor has also been considered, to account for the implementation of the Glasgow Low Emissions Zone (LEZ). The additional cost arises in respect of older vehicles in the fleet, including those beyond their effective vehicle life, but will also impact on a number of younger vehicles. A calculation has been developed to incorporate retrofitting cost minus grant support, and has been applied proportionately to the number of vehicles requiring retrofits within their effective vehicle life.

An initial fleet check was made using the Transport Scotland LEZ vehicle checker, which suggested all of the newer vehicles would be compliant. This conclusion was then challenged by the trade suggesting that some inaccuracies were contained in the checker service. Further confirmation has been provided by Glasgow City Council, highlighting that some model types continued to require modification, as summarised in table 2.

Table 2: Check by vehicle type against taxis with remaining effective vehicle lives

Vehicle type	Years checked (year of first registration)	Compliance with Glasgow LEZ
Vito (all models)	2016 - 2023	Non-compliant prior to 66 plate.
M8	2016 - 2023	Compliant without modification
LTI TX4	2016 - 2023	Compliant without modification
LEVC TX	2018 - 2024	Compliant without modification
Procab	2017 - 2021	Compliant without modification
E7	2016 - 2018	Non-compliant

Sources: https://lowemissionzones.scot/vehicle-registration-checker; and Glasgow City Council

Of the vehicles first registered in the period since 2016, two model types, the E7 (all models registered 2016-2018), and some Vito models appear to be non-compliant, requiring the addition of a compliance cost element[4]. We have incorporated the cost of compliance as a vehicle cost in proportion to the numbers of vehicles in this category.

Vehicles beyond their effective vehicle life may not meet the same standards, and it is understood that the older fleet includes a significant number of vehicles that require modification to allow them to continue to be driven in the city. In January 2024 the city neighbourhoods, regeneration and sustainability department wrote to taxi operators to provide an outline of actions possible. The previously applied exemption for non-compliant taxis is due to expire on the 31st May 2024.

An extension to the exemption period is possible in a limited number of circumstances, including to operators who have received a Energy Savings Trust grant for retro-fitting modifications, but not yet completed the retrofit; to those who were on the waiting list for an Energy savings Trust grant; to those who had an active expression of interest from the Energy Savings Trust, registered prior to the 31st December 2023; and to those who had purchased a complaint vehicle but not yet taken delivery, where the delivery date was later than 31st May 2024.

Vehicle operators outwith the exemption period, operating vehicles beyond the effective vehicle life, and not qualifying for an extension to an existing exemption, are liable for

[4] A compliance cost has been determined on the basis of modification cost minus Energy Savings Trust grant. Rates obtained from: https://energysavingtrust.org.uk/grants-and-loans/low-emission-zone-retrofit-fund/ Actual costs may vary by vehicle and provider.

retro-fitting at their own expense. While such modifications will come at some cost, the fact that these fall beyond their effective vehicle life means that the cost of vehicle replacement will have already been covered within the tariff structure by the time its application becomes compulsory.

1.1.2.5 Maintenance Costs

The cost of maintaining a taxi is a necessary element of the tariff review. A number of differing approaches have been discussed in past reviews, with the most recent update moving from a measured basket of parts to the adoption of an official measured tracker, namely the ONS vehicle parts and repair cost index.

65% of respondents considered the existing approach to be appropriate using the current sources of information. A further 21% considered the approach to be appropriate, but wanted clarity on the source, while 14% did not consider the approach appropriate, providing comments on alternatives. The issue of 'down time' appeared in a number of comments, and in relation to the added waiting times experienced by electric vehicle operators, sometimes allied to a view that there was a lack of sufficient electric vehicle support staff serving the city. A common view expressed also highlighted some difficulty in getting parts locally, with a further view that costs could be significantly higher than predicted, though it was also noted the cost measurement was expressed as a relative change.

The source of cost data for maintenance and parts is difficult to establish in any market. It is complicated by the fact that no one vehicle will face the same maintenance requirements as any other, reflecting the fact that each vehicle faces a unique set of operations, and will serve differing customer demands, routes and mileage. Earlier reviews had included the use of a basket of parts, identified locally on the basis of self reporting, sourcing parts and maintenance costs from local main dealers. The basket was updated regularly, but was challenged by changes in the fleet composition and model performance. Recent changes in the availability of some vehicle types, including the introduction of electric vehicles and the loss of some heavily used vehicles from the market made the collection and calculation of a fleet specific cost significantly more challenging, not least that the basket of parts differed significantly from the experiences of some operators as the market for parts changed.

The most recent update to the tariff moved to the use of an ONS figure, adopting a hybrid cost model approach. The hybrid nature reflecting the fact that the costs included a range of official and local measurements. Insofar as the fleet composition remains in flux, we would recommend the continued use of an external cost measurement. This would continue the use of the ONS as a source for cost data for this element of the tariff, and is recommended as set out in the measurement section, below.

1.1.2.6 Insurance Costs

Current measurement is based on the use of ONS cost figures. 72% of respondents were comfortable with the method applied. 11% felt the method was inappropriate with a majority of comments highlighting that the cost of insurance had increased significantly.

While previous reviews have undertaken analysis of the impact of changes in insurance costs, concluding there to be minimal difference between the measurement methods, it is also apparent that specific local circumstances have played a role in the cost of insuring a taxi in the city in the most recent period.

In light of significant changes in insurance cost measured using the ONS data, it was decided to make a further review of the method of cost identification. The research team made contact with local taxi insurance broker Clyde Gifford, retesting a previously applied methodology to establish extent of deviation. In the event the local broker was unable to provide a detailed like for like quoted. The broker was able, however, to provide an indication of overall change in insurance costs, which we have used to validate the measurement provided via the ONS. In the event it was confirmed that the measurements identified in the ONS reporting remained consistent with the trend in costs identified by the local broker. We would therefore recommend the continued use of the ONS figure, which we apply in the cost measurement section below.

1.1.2.7 Dispatch Costs

Dispatch costs are included and cover the costs borne for the use of a radio or on-line dispatch service. The inclusion of the cost is a relatively new additional element, and has been based on the inclusion of the Glasgow Taxis radio dues as a cost of production.

It can be argued that only a proportion of the Glasgow taxi fleet are, in fact, members of the Glasgow Taxis circuit, with a significant number of street taxis not paying radio dues to the company. Though the use of dispatch services has also expanded to include alternative on-line dispatch, including an increasing popularity of app based dispatch services. Newer and app based services will also charge for their use, often as a percentage of per trip cost.

85% of survey respondents indicated that they considered the factor to be appropriate, while 9% felt the factor inappropriate for inclusion. Insofar as all vehicles could use a dispatch service, whether provided by Glasgow Taxis Ltd. or a different provider, we recommend the continuation of a dispatch cost element in the calculation. We further recommend the use of a global figure in line with the cost for Glasgow Taxis radio dues, as the collection of data for app based services, both in terms of charges and frequency of use, based on self reporting, has not been undertaken in the interim period, and would create challenges to data validation.

1.1.2.8 License costs

The final cost element relates to the licence costs applied by the city. The cost is treated separately as it is a regulated rather than an operational requirement. Fees are categorised by licensing type, and charged for a period of 3 years. Temporary license are also granted. As the costs of licences is a necessary and regulated requirement, these have been included in all of the previous reviews. We recommend these continue to be included without variation in methodology in this review. It is noted that the cost of licences has, in fact, increased slightly in the period since the last review, and this is reflected in the calculations section, below.

2. Cost measurements

In the preceding section we discussed the methodology that we would adopt in determining the overall rate of change to taxi production costs. These are measured and discussed in the sections below. Each sub-section will develop and measure changes in each of the cost elements discussed above, bringing these together in section 3, calculation.

Costs are measured between baseline, the conclusion of the last review and target, the point of most recent measurement (September 2022 - February 2024). As this differs from the 12 month period typically used in inflation statistics, changes in costs will appear to be higher than those stated in annual reviews.

Further elements of analyses relate the costs of production to the number of miles driven, and are included in the calculations, detailed in section 3. The total number of miles driven, whilst in service or seeking passengers, impact on some costs, such as the total amounts spent on fuel; whilst the number of miles driven with passengers affects the income received, as these are the only times where a farebox income is taken. The report recommends that the underlying measurement of miles driven be updated, as discussed below.

The period of analysis demonstrates a decline in the total number of miles driven, though this has been somewhat offset by a declining number of licensed vehicles operating - the total loss in trips would have been greater had the number of operating vehicles remained the same. A distance cost factor is developed in the calculation section and applied to the total change in costs measured.

2.1 Earnings

Driver Earnings are included as a self-standing discrete element of analysis. This allows driver income to be assured, all other factors remaining unchanged, based on the pegging of the rate against comparable work, a practice called index linking. Driver incomes are effectively treated as a business cost, and treated accordingly.

The use of index linked data has been included in multiple reviews, and requires the identification of index measurements felt to be reliable. The earliest use of index values in the Glasgow Taxi Tariff review can be traced to fuel price indexing, using the AA Scottish fuel price index. The measurement being long-standing and considered accurate. More recent reviews have introduced a greater use of index values, an approach resulting in a Hybrid cost model. Recent reviews have adopted figures from the Office of National Statistics (ONS) as applied to earnings, amongst others, and is set out by element below.

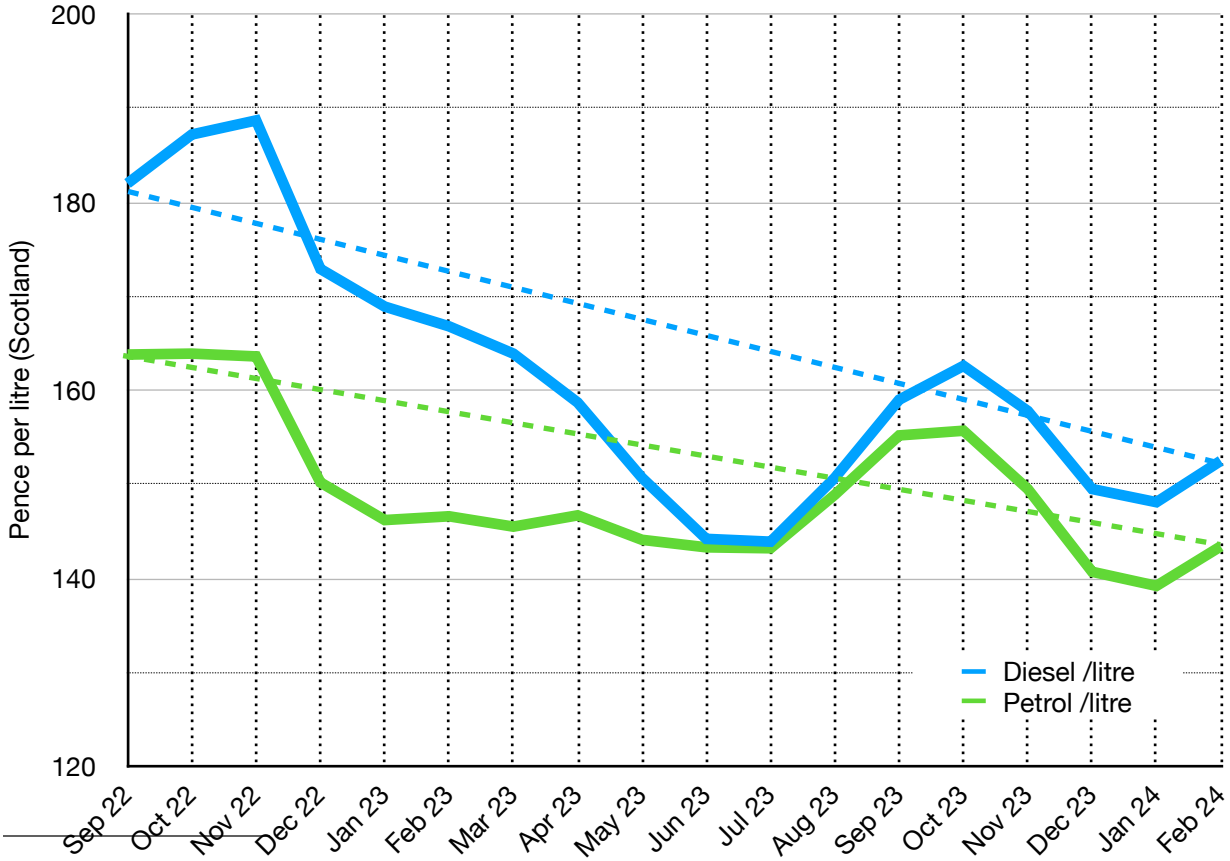
Changes applied to earnings costs are determined against the ONS Earnings and Employment dataset specific to transportation workers[5], which indicates an 8.3% increase in earnings over the period of analysis, which has been applied to the tariff, as discussed in the calculation section below.

2.2 Fuel Costs

Fuel costs are borne by all vehicles, in direct proportion to the numbers of miles driven, and fuel efficiencies of the vehicle itself. Some variations in fuel consumption will also follow from the driving style employed, and the maintenance of the vehicle. While the individual circumstances of each vehicle, including its upkeep and driving styles, may differ, fuel efficiencies data is available for all current taxis, including electric and hybrid vehicle types. Fuel costs are also typically collated and published, including by the AA which has been the primary source of liquid fuel costs applied to the tariff review in Glasgow.

Figure 2 illustrates the change in liquid fuel prices over the period since the last review. Both Diesel and Petrol costs have fallen in the period, albeit from an exceptionally high level. Diesel has declined 16.5% in cost, while petrol has fallen 12.5% in cost over the same period.

Figure 2 Fuel cost change, Petrol and Diesel, Scotland



[5] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/realtimeinformationstatisticsreferencetablenonseasonallyadjusted

While the change reflects a fall in costs, this has not been even over the period of analysis, reflecting the issue of price volatility originally developed in the last review. Traditional measures of this cost have been based on the amount paid at baseline and target respectively, indicated by the dotted line in figure 2, negatively impacting the sector where cost increases experience significant variation between these points - sit above the straight line, fig 2. Equally passengers will be disadvantaged where the measured costs remain predominantly below the trend, as the case over the period of analysis.

The blue curve in figure 2 represents the actual cost change experienced by motorists, the dotted blue line, the rate that would have been calculated on a straight line basis. Given that a majority of the cost of Diesel remains below the trend line, it is likely that the change in costs may be overestimated by the use of a straight line method alone. We therefore have applied a cost measurement based on a month to month average change, in line with the recommendations adopted in the previous review.

We would continue to recommend that volatile price calculations, such as those applied here, be based on a measurement where the base rate of change, for diesel, exceeds +/- 5% on any two occasions within a twelve month period, or exceeds +/- 10% on any one occasion in a twelve month period, see table 3, below. We recommend the use of Diesel fuel price to measure volatility while this remains the majority fuel used in the fleet.

Table 3: Monthly Fuel Costs (Scotland)

	DIESEL		PETROL	
Report period	Cost, pence per litre	Percentage change over previous month	Cost, pence per litre	Percentage change over previous month
September 2022	182.0		163.8	
October 2022	187.2	2.86%	163.9	0.06%
November 2022	188.7	0.80%	163.6	-0.18%
December 2022	172.9	-8.37%	150.2	-8.19%
January 2023	168.9	-2.31%	146.2	-2.66%
February 2023	166.8	-1.24%	146.6	0.27%
March 2023	163.9	-1.74%	145.5	-0.75%
April 2023	158.7	-3.17%	146.7	0.82%
May 2023	150.7	-5.04%	144.1	-1.77%
June 2023	144.2	-4.31%	143.3	-0.56%
July 2023	143.9	-0.21%	143.2	-0.07%
August 2023	150.7	4.73%	148.9	3.98%

	DIESEL		PETROL	
Report period	Cost, pence per litre	Percentage change over previous month	Cost, pence per litre	Percentage change over previous month
September 2023	159.0	5.51%	155.2	4.23%
October 2023	162.6	2.26%	155.7	0.32%
November 2023	157.8	-2.95%	149.5	-3.98%
December 2023	149.5	-5.26%	140.7	-5.89%
January 2024	148.1	-0.94%	139.2	-1.07%
February 2024	152.5	2.97%	143.4	3.02%
Impacts: (a) Baseline to target; (b) Cumulative	-16.21%	-16.43%	-12.45%	-12.41%

Source: The AA, fuel price reports, monthly, Diesel price per litre, average for Garages and Supermarkets, Scotland

The calculation of changes in fuel costs is based on the effective fuel efficiencies and distances driven. In cost terms, for every 100 litres of fuel, costing £182 in September 2022, the same quantity (100 litres) would cost £152.50 in February 2024, a point to point saving of £29.50, or -16.21%. The change is not evenly spread, however, with significant fluctuations in the cost of fuel, highlighted by the red shaded cells in the table above. Following the conclusion of the last tariff review we have highlighted months where the cost of diesel has fluctuated more than 5% (high variation), being: December 2022, May, September, and December 2023. Diesel fluctuations are selected as this remains the most common fuel type applied in Glasgow. The extent of fluctuation is notable and, in accordance with the previous recommendations, of 2 or more months of high variation, a volatile cost measure is applied in which the cumulative value of month to month variations is applied, albeit with a minor impact on the overall change compared to the point-to-point measurement over the course of the review.

Electric Vehicles require a more complex calculation, as only a proportion of EV miles driven will be powered by electric traction. This in turn requires analysis of the likely fuelling behaviour. We make the assumption that an electric vehicle will be charged to full battery once per day, to a total of 300 such charges per year. Vehicle range, under electric traction, are also included, on the basis of 54 miles, discussed in more detail in the next section.

Fuelling costs are based on the domestic cost of electricity, being the most frequently used charging behaviour reported in the survey, and calculated proportionate to the number of miles driven under electric traction, and those powered by petrol.

Table 4: Changes to the cost of domestic electricity supply

	Domestic electricity supply, variable	
	Pence / KwH	Percentage change over previous month
September 2022	26.57	
October 2022	31.49	18.5%
November 2022	31.49	0.0%
December 2022	31.49	0.0%
January 2023	31.2	-0.9%
February 2023	31.2	0.0%
March 2023	31.2	0.0%
April 2023	31	-0.6%
May 2023	31	0.0%
June 2023	31	0.0%
July 2023	28.54	-7.9%
August 2023	28.54	0.0%
September 2023	28.54	0.0%
October 2023	25.96	-9.0%
November 2023	25.96	0.0%
December 2023	25.96	0.0%
January 2024	27.12	4.5%
February 2024	27.12	0.0%
Impacts: (a) Baseline to target; (b) Cumulative	2.07%	4.4%

Source: SSE / OVO Energy

Using the same volatile cost approach for electricity pricing as applied for Diesel, suggests the fluctuations in the cost of electricity support a month by month cumulative approach, illustrated in table 4. Base KwH costs have been obtained from SSE / OVO, for domestic variable fuel tariff in Scotland, and indicate a cumulative change in electricity prices of 4.4% over the period of analysis.

Having established the rate of change for each of the fuel types shown above, the impact on overall fuel costs is calculated as set out below. In order to do so, a number of underlying assumptions need to be reviewed. Comments provided to the research team by the Glasgow Taxi Owners Federation (the federation) support the analysis in this respect by highlighting areas of the tariff assessment felt, by the federation, to have altered over the course of time. These include driven miles, charging behaviour and fuel efficiency[6], discussed below.

[6] See Glasgow Taxi Owners Federation document (Nugent, 2024), '2024.1 tariff edited'

Electric Vehicle Fuel Efficiency

The federation questioned the veracity of the manufacturer values, suggesting the LEVC value of 64 miles per charge, as stated in the last review, was excessive. Though it should also be noted that the official range has since been increased to 78 miles per charge[7]. The federation suggesting that a more realistic figure would be in the range of 35 and 40 miles per charge.

In our assessment we conclude a range of 54 miles to be more realistic. This takes account of a number of local factors that will affect the range of an electric vehicle. These include driving style, traffic conditions, and local terrain. A popularly stated issue also relates to 'range anxiety', the point at which a driver becomes anxious about the remaining charge left within the battery, and may revert to earlier re-fuelling than strictly necessary, rather than running out of charge before a trip is ended. Range anxiety has the effect of limiting electric driven distance, arguably before necessary, but is more relevant to pure battery electric vehicles, where no alternative traction exists; as opposed to hybrid / range extender vehicles, including the TX taxi, where a petrol engine provides power as necessary.

In our assessment we recognise it to be unlikely that the actual performance of the fleet would achieve the full rate of 78 miles per charge suggested by the manufacturer. Driving conditions are rarely perfect, while Glasgow's topography creates additional hill starts that may not have been fully included under testing conditions. It is also true that a battery vehicle efficiency will decline over the life of the vehicle, a phenomenon known as battery degradation, and is reduced in cold weather.

The US department of energy suggests a decline in battery performance of 2.3% per annum, based on real life testing. Where this is taken to be accurate, and over the median effective vehicle life of a taxi equipped with the original, rather than upgraded TX battery (64 miles / charge), that same vehicle may be achieving a range of 59.68 miles / charge under test conditions. Added to this a local factor of 10% further reduction to reflect the harsher conditions of the Glasgow road network, and any variation in driving styles, a Glasgow range of 54 miles is calculated. We have therefore adopted the lower rate, of 54 miles per charge, in the calculation below.

Diesel fuel efficiency and miles driven

Previous reviews have based calculations on a typical number of driven miles across the fleet, allied to reported fuel efficiencies[8]. The number of miles driven being a combination

[7] This is generic number for the UK use of the vehicle rather than a measurement based on use in Glasgow alone. The update is suggested as being in line with increased frequencies of testing affecting the reliability of the data from which a calculation could be made. See also: https://www.fleetnews.co.uk/news/van-news/2023/05/24/levc-announces-battery-upgrade-for-vn5-van-and-tx-taxi#:~:text=The TX taxi now emits,(up from 318 miles), accessed March 2024.

[8] Vehicle fuel efficiencies have been derived from manufacturers main dealership provided data. Stated values used: Mercedes Benz 34.9mpg, ford Procab: 44.8mpg.

of both live miles, with passenger, and those driven without a passenger to the start and from the end of a trip. Three aspects are of significance,

- The efficiency of the vehicle itself, with newer vehicles displaying higher efficiencies compared to older models, with current diesel models achieving a reported average of 38.6mpg[9];
- The number of miles demanded for passenger transportation; and
- The effectiveness of the dispatch system, or number of waiting passengers seeking a taxi. Dispatched taxis, those on a radio circuit, have a higher chance of being 'allocated' to nearby next trips; while those operating in the city centre, often street taxis without radios, are more likely to receive flagged or stance trips.

Previous reviews have used a figure for driven miles based on the driving patterns reported to the analysis. The figure has been updated over time to reflect the number of miles measured at time of testing, based on an official odometer reading, and the stated number of miles driven with and without passenger. The extent to which operators have been able to provide mileage figures has declined over the past reviews, making the distinction between live and positioning miles less reliable. It is our conclusion that mileage based analysis be best approached on the basis of official testing figures alone. As a result the calculations described below are based on a total of 19,855 miles, annualised from testing figures. This is then applied by proportion to the traction type, see table 5.

Table 5: Proportion of fuel type by traction[10]

Fuel cost	Total of fleet by traction	Total by vehicle type	Percentage change cumulative cost	
Diesel traction	77.5%	77.5%	-16.43%	-12.73%
EV under electric power	18.36%		4.4%	0.81%
EV under petrol traction	4.14%		-12.41%	-0.51%
EVs under either traction		22.5%		
			Effective percentage change all fuel types	-12.44%

In order to establish the proportion of miles driven under each fuel type, the percentage change in cumulative costs is multiplied by the total percentage of traction using each fuel type. In the case of Diesel vehicles the same change occurs across all miles, whilst the EV will experience the proportion of miles driven on battery power at a different rate to that driven under petrol traction. This is calculated by subtracting the average electric charge range, of 54 miles, from the mean daily number of 66.18 miles, leaving 12.18 miles using petrol. As the cost of electric charging has increased, whilst both diesel and petrol costs have fallen, this results in a total effective percentage change (fall) of -12.44% in the cost of fuel across all fuel types.

[9] The fuel efficiency value of 38.6mpg relates to the Diesel fleet comprised of vehicles with remaining effective vehicle life.

[10] Fleet calculations are based on primary vehicle types with remaining effective vehicle life

2.3 Vehicle purchase

Taxi vehicle purchase costs have also faced a series of changes in Glasgow in recent years. A number of the traditional taxi vehicle models used in the Glasgow fleet have exited the market, with few new models available in their place.

While the market has been in flux for the most recent reviews, all have sought to apply a series of standards and expectations. These include the full measurement and inclusion of new vehicle costs in to the taxi cost model. In so doing the model provides a basis on which operators are able, but not obliged, to invest in new vehicles on an ongoing basis.

A vehicle cost depreciation period of 8 years has been defined, from new purchase of an entry level vehicle, to the end of its use in frontline service. The approach is known as straight line depreciation, from a quoted new purchase price to zero value at the end of the depreciation period. It is noted that the calculation is based on manufacturers quoted on the road pricing for base level models. The price of more advanced model options, such as additional 'comfort packs', are not included, though this does not prevent their purchase.

The concept of a depreciation period from purchase to zero value may also be described as the effective vehicle life of the taxi. Vehicles beyond their effective vehicle life have effectively covered their full value from tariff, although there has traditionally been no objection to vehicles that remain safe and roadworthy continuing in service beyond this period.

Additional vehicle capital costs can also arise, including with the introduction of the Glasgow LEZ. While newer vehicles are likely to already be compliant, older vehicles within the fleet are not. This has required some operators to make adjustments to vehicles within the fleet to remain roadworthy. Modifications are typically retrofitted mechanical adaptations that reduce emissions levels in older vehicles. Whilst these do, undoubtedly, come at additional cost, it is also important to note that few vehicles within their effective vehicle life, require retrofitted adaptations, requiring a proportionate, rather than blanket, approach to the inclusion of compliance costs.

It is also noted that financial support has been made available to the trade in the period leading up to and since the introduction of the LEZ, as well as specific vehicle exemptions allowing a grace or lead in period. We therefore conclude that the cost of any modifications as would be necessary to the continued use of older vehicles do not form part of the tariff review. A supplemental cost is included for non-compliant vehicles, see table 6.

Table 6: Vehicle costs, base model cost

Vehicle type	Baseline	Target	Proportion of new purchases	Percentage change baseline - target / calculation
LEVC TX Purchase new	£59,520.80	£64,309.00		
LEVC TX Depreciated cost	£7,440.10	£8,038.63	100%	8.04%
	Effective percentage change, LEVC			8.04%
Compliance cost	Vehicles within effective life requiring modification			83/589
	Proportion of purchases - vehicles within effective life			14.09%
Modified depreciated cost	£7,440.10	£8,400.94		12.91%
	Effective percentage change, including compliance cost, vehicles with effective vehicle life			12.91%

Source: LEVC[11], Energy savings trust, Glasgow fleet tables.

2.4 Vehicle Maintenance

The previous review recommended the use of ONS data for maintenance costs. The primary reason, at the time, related to the rapid change in the fleet composition away from earlier vehicle types, resulting in an uncertainty of precise future composition.

Market uncertainty remains at the time of this review. A limited choice of vehicles remains, while the presence and enforcement of the Glasgow LEZ will also impact on vehicle purchase behaviours. As a result we recommend the continued use of the ONS index, which has been adopted below.

Table 7: Vehicle maintenance. cost

Index values (2015 = 100)	Baseline	Target	Percentage change baseline - target
Maintenance costs	124.5	139.3	11.89%
Spare Parts	120.8	131.8	9.11%
Effective cost change	£2,066.64	£2,284.00	
	Effective percentage change		10.52%

Source: ONS, CPI Index 07.2.1, 07.2.3[12]

[11] LEVC On the road price LEVC TX VISTA (excludes comfort pack) https://www.levc.com/new-models/tx-taxi-overview/

[12] https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/d7ed/mm23

2.5 Insurance costs

In our previous review we also recommended the move to the use of ONS data for insurance cost. We have maintained this approach in the current study, but note that the cost of insurance has increased significantly since the last review.

As a result of the high level of increase we undertook a further spot review to provide a comparison between taxi specific and ONS rates. The research team approached Clyde Gifford, the successor to James Bell insurance who had previously provided insurance costs for the tariff review. Clyde Gifford were unable to provide specific costs on the same basis as had been provided previously. They were able, however, to confirm the overall level of increase had been significant, in line with the levels being reported via the ONS.

In light of the spot review, and given ongoing changes to the availability of new vehicles, we would recommend the continued use of ONS data for this calculation. We also recommend the review of ONS data be undertaken at the time of future bottom-up studies.

Table 8: Insurance cost

Index values (2015 = 100)	Baseline	Target	Percentage change baseline - target
Motor Vehicle Insurance	130.7	203.1	55.39%
Effective cost change	£1,704.57	£2,648.80	
	Effective percentage change		55.39%

2.6 Dispatch costs

Taxi dispatch costs are included to account for changes in the cost of dispatch services. The main supplier of dispatch being Glasgow Taxis Ltd., who provide a radio circuit to its members, charged as dues. Other dispatch services are also available via apps, which have tended to charge on the basis of per trip commission.

While there is no compulsion for a taxi to belong to any circuit, nor indeed to accept a trip offer, the presence of efficient dispatch systems does work to the benefit of the passenger, as well as supporting the more efficient use of vehicles once operating. The inclusion of the cost has been applied over a number of reviews, and we recommend its continued application.

A base level radio dues amount has been obtained from Glasgow Taxis Ltd. and applied to the calculation. It is noted that the base rate for radio dues in Glasgow has not changed over the period from Baseline to target.

Table 9: Dispatch Costs

	Baseline	Target	Percentage change baseline - target
Glasgow Taxis Ltd., dispatch fee	£3,812.00	£3,812.00	0.00%
	Effective percentage change		0.00%

Source: Glasgow Taxis Ltd.

2.7 Licence costs

Taxi licence costs are sourced from the City Council. The licence cost is specific to the taxi trade and is therefore included in the taxi specific element. Costs are shown as annual rates ate baseline and target. There has been a 10.07% increase in the period from baseline to target.

Table 10: License costs

License cost 1 year equivalent	Baseline	Target	Percentage change baseline - target
Renewal of Taxi Drivers Licence	£56.00	£61.67	10.12%
Renewal of Taxi Licence	£139.33	£153.33	10.05%
	Effective percentage change		10.07%

Source: Glasgow City Council

3. Calculated change in costs

Having identified the changes in the costs of production, illustrated in table 11 as a percentage change, this figure is then applied to the taxi tariff fare card. On the basis of measured changes to costs the Glasgow Taxi industry has experienced an 8.87% increase in the period from September 2022 to February 2024.

Changes to costs after February 2024 are not included and will be captured in the following review.

Table 11: Cost calculation, taxi production costs Glasgow

Cost Element	Category	Effective percentage change	Weighted change
Earnings Levels	Earnings	8.31%	4.75%
Variable Costs	Fuel	-12.44%	-0.87%
Fixed and semi-fixed costs	Licensing costs	10.07%	0.05%
	Vehicle purchase cost including compliance	12.91%	2.27%
	Taxi Dispatch Costs	0.00%	0.00%
	Maintenance Costs	10.52%	0.45%
	Insurance Costs	55.39%	3.07%
	Effective weighted increase in period of calculation		9.72%

The update in tariff requires the application of the calculated increase, shown in table 11, to be applied to the Glasgow Taxi fares.

As the tariff includes incremental charges (steps) in both time and distance elements, it is possible that passengers will experience differences in the rate of change in fare that may fall above or below the recommended increase, dependent on the distance and waiting time for each journey. This is a normal observation in tariff reviews.

3.1 Application to tariff

The next step in the review is the application of the calculated change in costs to the taxi tariff. In its simplest terms this would result in each part of the tariff being increased by the same calculated percentage, though this is made more complicated by the structure of the tariff itself and, in particular, the use of increments. A cost increment relating to the

use of defined multiples of an amount, for both distance and time, originally developed to avoid the use of large numbers of copper coins. The calculation of fares payable will alter in relation to both the incremental distance traveled and time taken, with the further addition of any relevant extras as may be applied to the total fare.

Tariff application, as may be recommended as a result of a fare review, will necessarily adjust the units of cost, time, and distance, with the net effect of increasing income by the recommended amount. The total uplift will reflect the recommended amount of change. Table 12 illustrates the current and proposed tariff changes, including changes to initial charge and extras.

Table 12: Tariff elements recommended[13]

	Current			Proposed	
FLAG FALL.					
Flag Fall Charge	To be increased from	£4.00	to	£4.40	/engagement
Flag Fall distance unit	To be increased from	886	to	889	Yards /engagement
Flag Fall time unit	To be increased from	166	to	167	Seconds /engagement
INCREMENTAL DISTANCE					
Distance charge	To remain unchanged at	£0.30		£0.30	/increment
Distance increment	To decrease from	198	to	179	yards /increment
INCREMENTAL TIME					
Time charge	To remain unchanged at	£0.30		£0.30	/increment
Time increment	To decrease from	42	to	38	Seconds /increment
EXTRAS					
Soiling Charge	To increase from	£42.00	to	£46.00	/ incident
Night Time Charge	To increase from	£1.40	to	£1.50	/engagement between 21:00 and 06:00, except as below.
Christmas / New Year charge	To increase from	£2.50	to	£2.70	/engagement commencing between 21:00 on the 24th and 06:00 on the 27th December; and between 21:00 on the 31st December and 06:00 on the 3rd January.

3.1 cost element change

A wide range of views have been expressed to us over the course of the analysis. Many comments reflect the real life issues experienced by the taxi trade. We remain indebted and very grateful to the industry in voicing these. We have been careful in our analysis to make sure the full range of views expressed have been taken into account in our work. In this section we outline the logic we have taken in applying cost changes to the tariff itself.

[13] For night time surcharge, the measurement of time period commences at 21:00 precisely, and ends at 05:59 and 59 seconds.

3.1.1 Flag Drop

The flag drop element of the tariff, also known as an initial charge, provides a higher initial income on engagement with an included distance typically greater than incremental distances. The rate has been argued to offset dead times between trips, for example whilst sitting at a taxi stance. 'Flag' has been a continued element in taxi supply in a vast majority of locations over multiple years.

Whilst a number of views have been expressed, both in terms of the level of the initial charge not fully offsetting the cost of waiting at a stance, and in one proposal the allocation of all cost increase to the flag fall, we conclude the flag increase should be maintained in line with the measured change in cost. We have applied this by increasing the flag fall charge, rather than applying significant changes to included distance and time, other than the fine tuning required to equal rounding.

3.1.2 Time and distance increments

A direct application of an 9.72% increase to the 30pence increment would result in an increase of 2.91pence per increment. The use of a fraction in the incremental amount does not make logical sense, and we have concluded this to be inappropriate.

The alternative adopted has been to apply a decrease in distance and time purchased by the original 30pence. Thus the incremental distance falls from 198 to 179 yards per increment, with a similar calculation applied to time.

3.1.3 Soiling charge

The rounded application of measured increase results in an increase in soling charge to £46.00.

3.1.4 Night time and Christmas supplements

The charging of night time supplements has been included in the tariff in most locations for many years. The additional charge has been argued as necessary to support the provision of services at key points in time when demand has exceeded supply.

Socio-economic benefits arise from the support of night time industry, with additional safety benefits in encouraging taxi supply to get people home after partying. We consider these arguments to continue to be true, while the decline in the number of drivers within the trade has had an impact and is likely to continue to reduce the active supply at points of key demand - a decrease in the number of vehicles within the fleet can have the impact refocusing supply away from the least attractive times of day. It is noted that evening, family, and night time cusp participation in city activities can and likely will continue to be affected by declining supply.

We have therefore proposed an update to the measurement of night time supplements, in which a night time rate surcharge of £1.50 be applied to all engagements commencing after 21:00, and before 06:00.

The move to 9pm is likely to encourage supply to evening and night time operation. We do not feel there to be a justification for additional later night surcharges.

We further recommend the increase of the Christmas and New Year surcharge to be increased to £2.70, with a further standardisation of start and end time to apply to engagements commencing between 21:00 on the 24th December and 06:00 on the 27th December; and between 21:00 on the 31st December and 06:00 on the 3rd January. This brings the Christmas and new year surcharge in line with the start and end times applied for other night time supplements.

4. Conclusions and recommendations

In the preceding text we have set out the methodology, research, and costs faced by the taxi trade in Glasgow. We have undertaken the analysis in line with the Civic Government (Scotland) Act 1982, and have sought to ensure that any recommendation made herein is consistent with and can be justified against changes in the costs of production experienced in Glasgow.

Our primary conclusion being that the cost of taxi provision in the city has increased by 9.72% over the period of analysis, and have applied this amount to the tariff table that forms the basis of taxi fares in the city.

Wherever rounding has been applied this has been done in the passengers' favour. While the use of a 30 pence increment will result in step changes in the income from some trips, the effect of the recommended application, including rounding, is that taxi fare box income increase by an overall rate consistent with the change in costs as measured.

We recommend an increase to flag fall and incremental charges as follows:

- An additional charge of 40pence is applied to flag fall, with a minor consequential changes to included distance and time to ensure adherence to the calculated change.

- Both incremental distance and time have been maintained at the present rate of 30pence per increment, with a consequential change in yards and seconds per increment.

We recommend some changes to the amount and structure of extras charged:

- Soiling charge increases for £42 to £46 per incident.

- We recommend that night time supplements are updated to £1.50, to be charged for all engagements commencing after 21:00 before 06:00, seven days per week, except for engagements commencing over Christmas and New Year periods, as below.

- Christmas and New Year travel, being engagements commencing between 21:00 on the 24th and 06:00 on the 27th December; and between 20:00 on the 31st December and 06:00 on the 3rd January to be charged a supplement of £2.70.