Department for Transport

# Forthcoming Change to TAG

## Details

| Description | Updates to the TAG Data Book regarding fleet assumptions |
|---|---|
| Unit | TAG Data Book |
| Change announced | May 2022 |
| Expected release date | **November 2022** |

## Description

This Forthcoming Change sets out updates to the TAG Data Book to reflect the latest forecast fleet assumptions from DfT's Environmental Analysis team. This consists of updated vehicle kilometre (vkm) splits in table A1.3.9, fleet fuel efficiency growth projections in table A1.3.10 and base year electric vehicle consumption in table A1.3.8. A Forthcoming Change version of the Data Book (v1.19) has been made available to support analysts in applying these updates. A Forthcoming Change version of the TUBA economics file will also be made available as soon as possible.

## Contact

For further information on this guidance update, please contact:
Transport Appraisal and Strategic Modelling (TASM) Division
Department for Transport
Zone 2/25 Great Minster House
33 Horseferry Road
London
SW1P 4DR
tasm@dft.gov.uk

## Detail

### Background to assumptions

We are updating the fleet assumptions used in TAG in a staged manner, reflecting recent accelerations in the uptake of electric vehicles (EVs) but holding off fully reflecting the ambition set out in the Transport Decarbonisation Plan (TDP) until the constituent planned policies have been further defined. The update also assumes a continuation of current taxation policy. Overall therefore, the aim is to balance alignment of analytical assumptions with announced policy (such as the TDP), and to assume-in the delivery of policies only once they are sufficiently implemented.

The update will ensure that analysts have the most unbiased and realistic set of assumptions available to inform decision making. The fleet assumptions will inform the National Road Traffic Projections (NRTP) and Common Analytical Scenarios, both of which will be published in summer 2022. The update will also provide the basis for the fleet assumptions used in the 2021-2040 Energy and Emissions Projections (due to be published by BEIS later in 2022).

### Fleet modelling details

UK CO2 2025-2030 regulations for cars, vans and HGVs require vehicle manufacturers to ensure that their overall fleet of new vehicles sold in each year meet emissions targets. Manufacturers may meet these targets by either selling increased numbers of Ultra-Low Emission Vehicles (ULEVs), or by improving the average fuel efficiency of conventional vehicles. We assume that manufacturers will meet the targets but will not overachieve against them.

We assume that uptake of ultra-low emission cars and vans is limited by consumer demand (as modelled by the Electric Car Cost Model (ECCo)) and that any further required improvement will be met by improved fuel efficiencies/hybrid uptake. For HGVs, we assume that all targets are met by

improving diesel fuel efficiency, as there is currently no large-scale roll-out for ULEV HGVs.

Modelling updates:

- The Road Carbon and Fuel Fleet Model (RoCaFF) calculates vkm splits and fuel efficiencies for cars, vans, HGVs and PSVs. The model has been updated with the latest statistics and sales figures. Latest sales figures show increased sales of ULEV cars compared to 2020.
- Falling battery prices have led to higher projections of ULEV uptake for all road vehicles.
- Consumer choice modelling (from ECCo) of ULEV uptake for cars and vans has been updated to include the latest market data, including lower battery costs. This results in updated vkm electric split forecasts (TAG table A1.3.9).
- There have been revisions to input assumptions on vehicle characteristics, which has led to updates to the electricity consumption of electric vehicles (TAG tables A1.3.8 and A1.3.10).
- Forecasts of ULEV bus sales have been updated to reflect the latest policy commitments.
- Updated biofuels modelling has been incorporated, leading to small changes in petrol/diesel fuel consumption for cars, vans, HGVs and PSVs (TAG table A1.3.10).
- Latest data on new vehicle fuel consumption has been taken into account, leading to changes in petrol/diesel fuel efficiency for cars and vans (TAG table A1.3.10).

**Changes to the TAG Data Book**

The following updates will be made to the TAG Data Book to account for the updated fleet assumptions. For more details of the changes please refer to the annex.

- **Table A1.3.8:** Updated base year electric vehicle consumption factors, for cars, LGVs and PSVs.
- **Table A1.3.9:** Updated proportions of car, LGV and PSV vkms using petrol, diesel and electricity, with projections to 2050.
- **Table A1.3.10:** Updated forecast fuel efficiency change for car, LGV, HGV and PSV, to 2050.

Scheme promoters should follow the TAG proportionate update process when deciding how to apply the update fleet assumptions in modelling and appraisal. The Department expects that such decisions should be made on a scheme by scheme basis and be based on balancing the need to ensure decisions are based on up-to-date evidence with the need to support decision makers in delivering their programme. This should involve reasonably balancing (a) the greater time, cost, and/or resource needed to deliver programmes, with (b) the quality of the analysis submitted to assist the decision required, including its robustness against potential challenge from all sources.

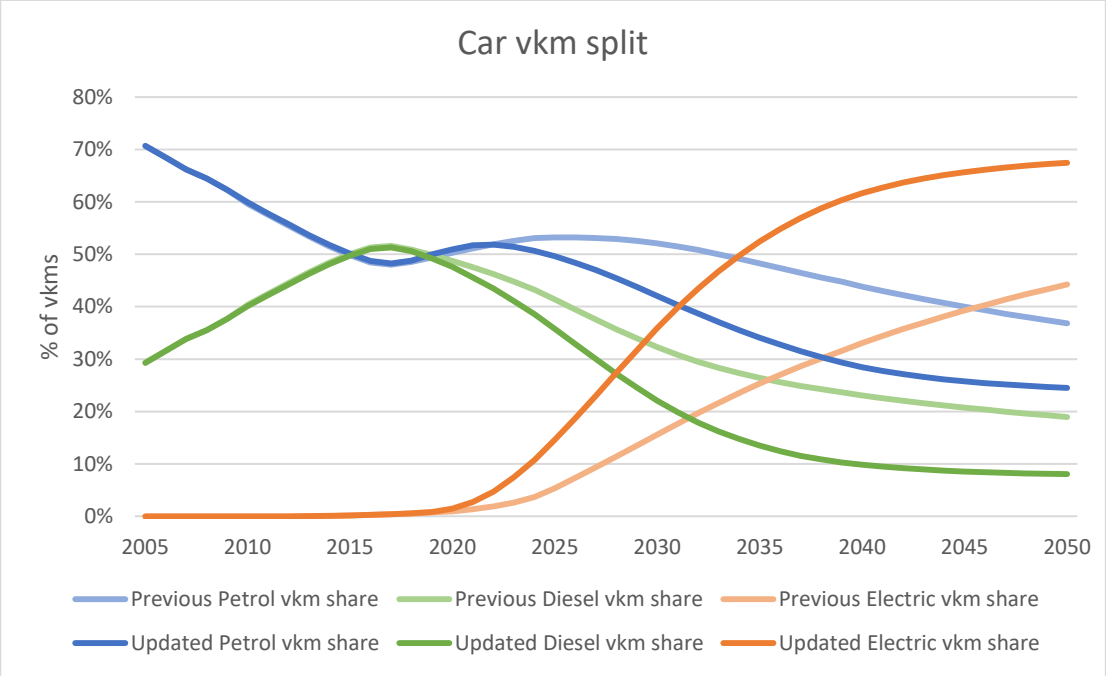
As per the TAG orderly release process, the publication of a set date for when the change will occur (November 2022) allows users to plan their work appropriately. Where your work is due to report after this date, you should work to the updated values or guidelines if it is appropriate to do so, following guidance in the proportionate update process. Where the fleet assumptions cannot be fully applied in scheme modelling and appraisal, it may be appropriate to adopt the new assumptions via a sensitivity test. If you are unsure, please contact us at TASM@dft.gov.uk.

## Annex: Details of changes to fleet assumptions

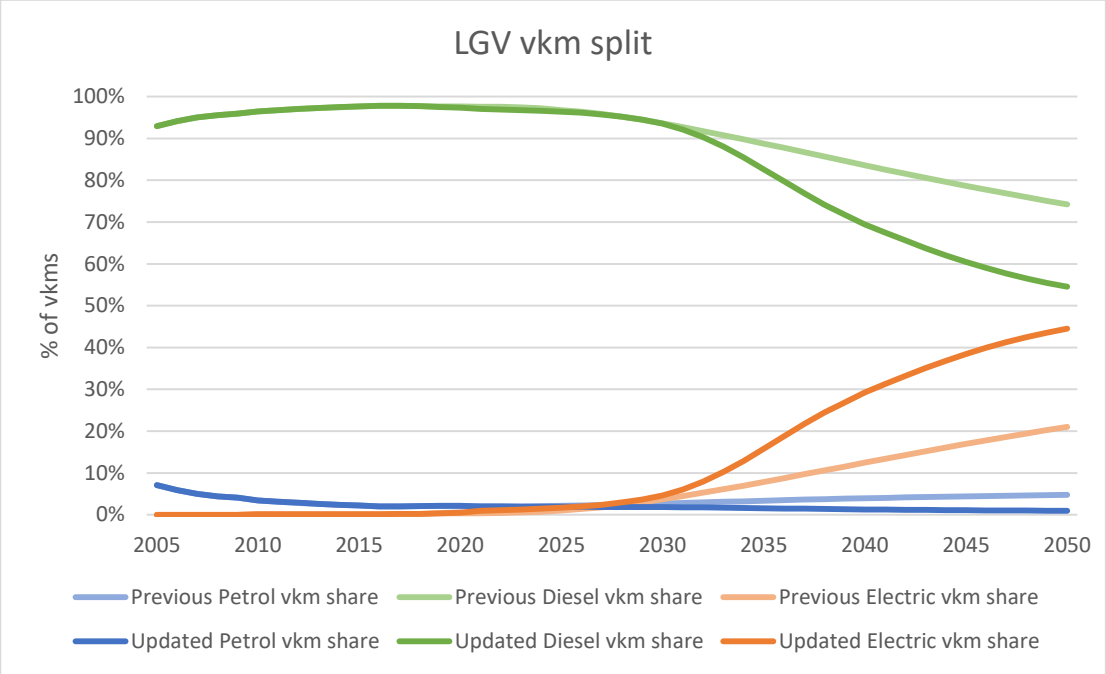
Changes to A1.3.8 (electricity consumption, kWh per km, 2015)

| | Previous value (kWh/km) | Updated value (kWh/km) |
|---|---|---|
| Car | 0.2191 | 0.2207 |
| LGV | 0.2335 | 0.2590 |
| PSV | N/A | 1.1798 |

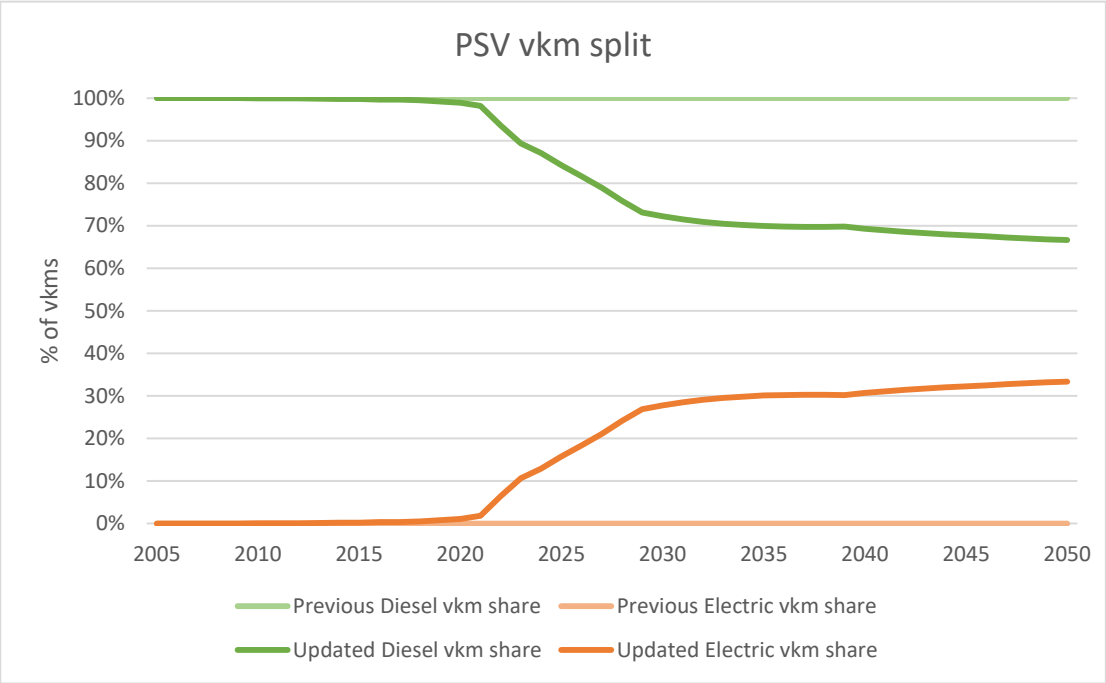
Car Vkm split (TAG Data Book v1.18 vs v1.19)



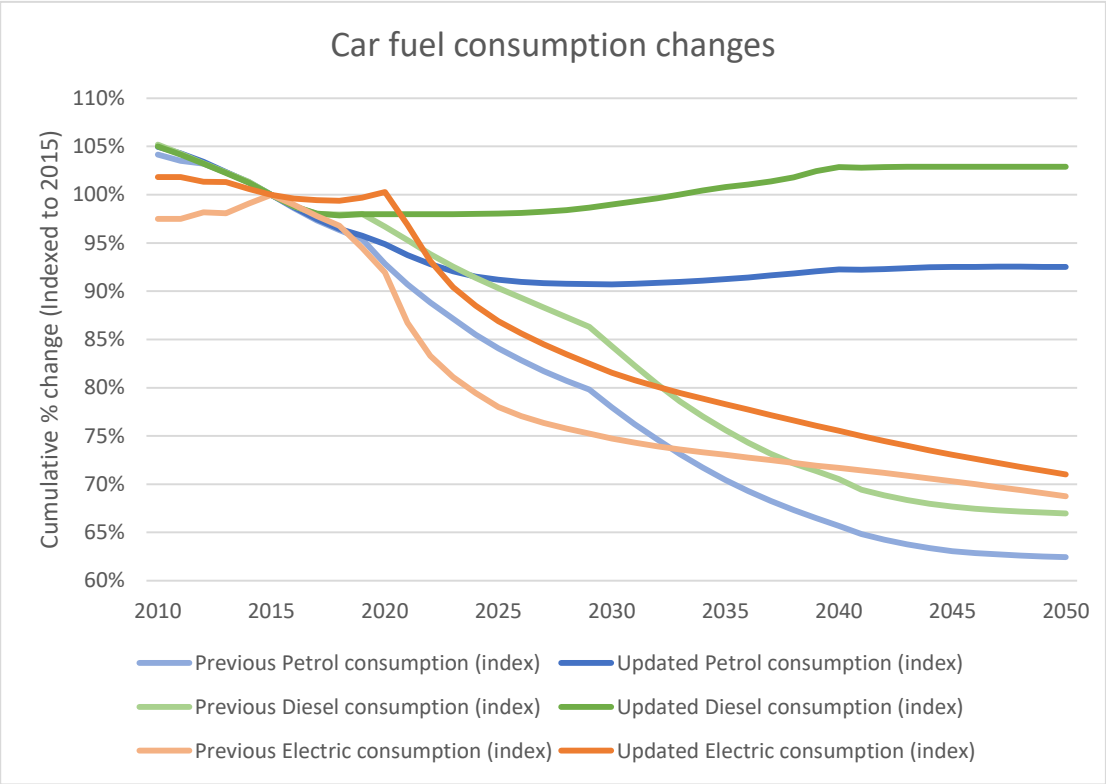
LGV Vkm split (TAG Data Book v1.18 vs v1.19)



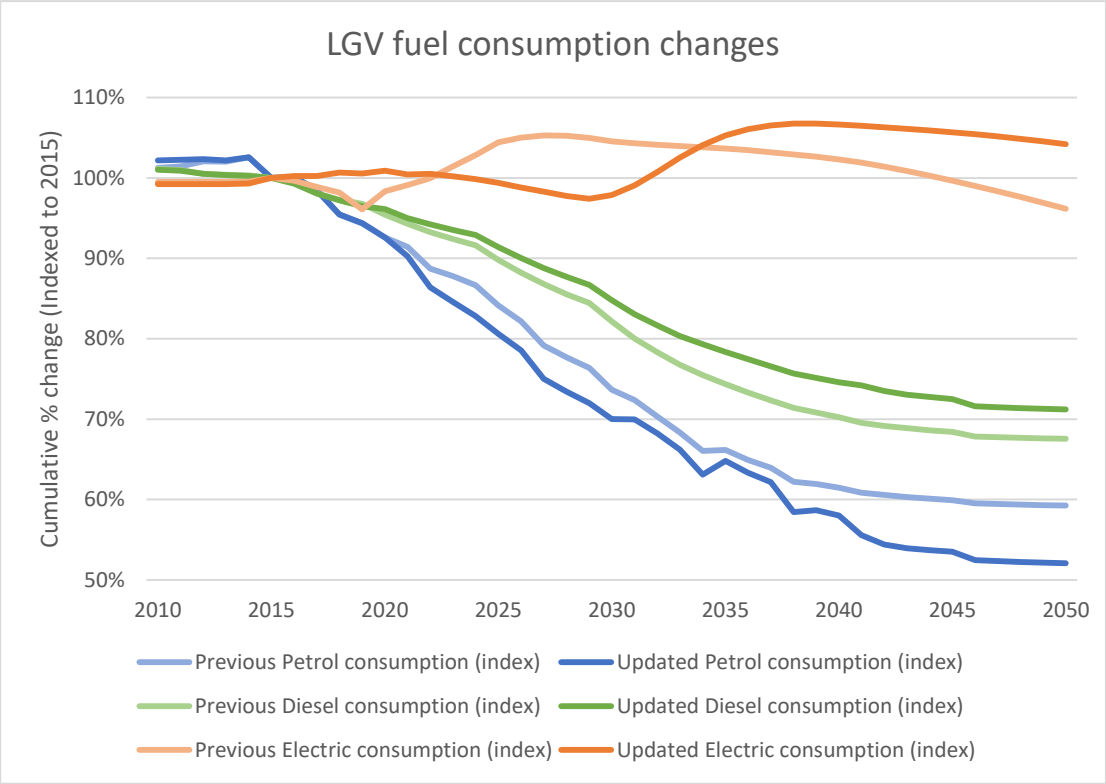

PSV Vkm split (TAG Data Book v1.18 vs v1.19)



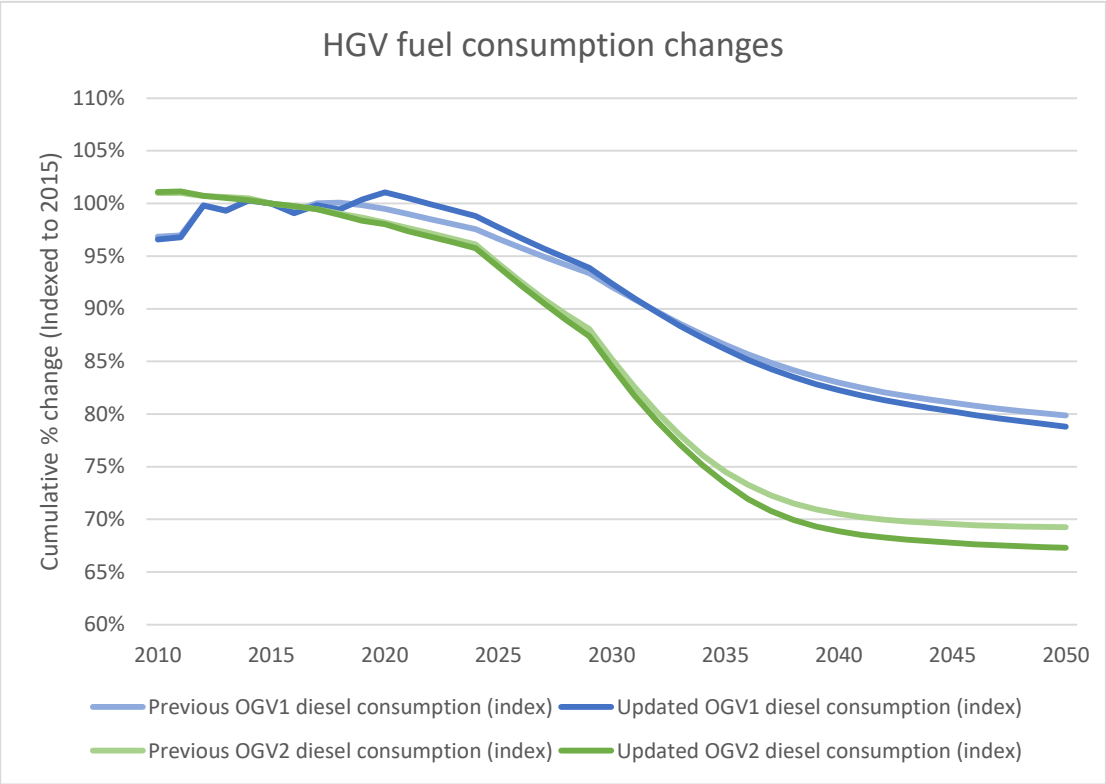
Car fuel consumption forecasts (TAG Data Book v1.18 vs v1.19)




LGV fuel efficiency forecasts (TAG Data Book v1.18 vs v1.19)



HGV fuel efficiency forecasts (TAG Data Book v1.18 vs v1.19)




PSV fuel efficiency forecasts (TAG Data Book v1.18 vs v1.19)