



BRIEFING - September 2024

Jet Fuel Duty

How much revenue could have been raised for the UK Government if fuel duty was applied to jet fuel in 2023?

Summary

£5.9 billion.

That's how much money the Government could have collected in taxes in 2023 by simply charging fuel duty on all jet fuel at the same rate as British drivers are charged.

Incredibly though, unlike British drivers, hauliers, rail operators and farmers, airlines do not pay tax on the fuel they burn. Road fuel duty is currently levied at just under 53p per litre and this revenue accounts for approximately 5% of Government revenues. And at least some will, in theory, go to the costs that society has to pay due to burning fossil fuels. These costs include NHS costs due to increased air pollution and infrastructure adaptation costs due to worsening climate breakdown. These costs occur due to the burning of fossil fuels - including jet fuel - but yet the aviation sector does not contribute a penny in fuel taxes despite burning 11.1 million tonnes of jet fuel in 2023. For context, this was almost the same amount of petrol as was burnt in the UK last year.¹

There is a common myth that jet fuel cannot be taxed for legal reasons, but this is simply not true. It is, and always has been possible to tax fuel used on domestic routes. Since the post-Brexit Trade and Cooperation Agreement was signed with the EU in 2020 it has been possible to apply fuel duty to flights to any EU destination. Flights to UK and European destinations account for 80% of total departures. Depending on the wording and clauses in individual air service agreements it may also be possible to tax fuel used on other routes.

This paper has analysed the effects of applying fuel duty at different rates and to different destination regions. All but one of the rates chosen are rates that exist and are already charged on other transport fuels. The findings show that the UK government is missing out on between £0.4 to 5.9 billion annually depending on the routes covered and tax rate applied. **To ensure that jet fuel is fairly taxed, the Government needs to use the upcoming autumn budget to:**

- **Apply a 9p fuel duty rate to kerosene starting in 2025. Thereafter the rate should be raised annually until it matches road fuel duty in 2030.**
- **Require airlines to purchase 90% of the fuel for all departing flights at UK airports to prevent airlines from purchasing untaxed kerosene from outside the UK.**

¹ Data can be found in table 3.2, here:

<https://www.gov.uk/government/statistics/petroleum-chapter-3-digest-of-united-kingdom-energy-statistics-dukes>. This paper's analysis is based on OAG data, which suggests that 10.1 million tonnes of jet fuel was uplifted in 2023. However, this was exclusively uplifted to commercial and cargo aircraft, suggesting the discrepancy between DUKES data and OAG data arises due to fuel uplifted to private jets, military and other non-scheduled civil aircraft.

1. Introduction

Fuel duty - a tax levied on a unit of purchased fuel - is charged on almost every liquid fuel that is bought and burnt in the UK. Duties are applied to petrol, diesel, bioethanol, biodiesel, LPG for transport use and oil for home heating. The tax raised goes into the general revenue “pot”, and is used to pay for the nation’s public services - schools, hospitals, etc. It is also used to pay the costs of the negative externalities that burning fossil fuels causes, such as the NHS costs society incurs in treating respiratory conditions caused by air pollution.

Incredibly though, despite the huge climate impact, air pollution and adverse noise effects burning fossil fuel in planes causes, jet fuel is zero-rated for fuel duty, meaning it is effectively untaxed. Put simply, and in direct contrast to other sectors, the aviation sector does not pay its way. This means that under the current system, a teacher driving to school will pay more fuel duty than a private jet owner will pay to go on holiday.

It does not have to be this way. The Chancellor could impose fuel duty on jet fuel in the next budget in October 2024. This would have the effect of raising revenue quickly - crucially needed after the [discovery of a £22 billion “hole” in the UK’s public finances](#) - and applying a decarbonisation measure to a sector whose emissions are predicted to continue rising in the near-to-mid-term.

This paper analyses what would have happened had different duty rates been applied to fuel on different destinations in 2023. Two main effects are investigated: the revenue raised and the expected reduction in aviation emissions that would have occurred due to the higher costs incurred.

2. Specific Duty Rates

The following rates have been considered. All of them bar one are benchmarked against current rates that are already paid on transport fuels used elsewhere. The final (and lowest) rate was [suggested by Green Alliance](#), an environmental NGO, as its suggested introductory rate on how to embed the polluter pays principle into aviation. Thereafter Green Alliance proposed to increase the rate incrementally to 97p in 2035.

Duty Rate (pence per litre, ppl)	Justification	Paid By
9	Green Alliance's (GA) introductory rate	-
11.14	Red Diesel rate	Farmers, rail operators
36.29	Avgas rate	Pleasure flyers (small planes)
52.95 ²	Petrol and Diesel rate	Commuters and Hauliers

² This rate is a ‘temporary’ rate that has been in place since March 2022. The ‘normal’ rate is 57.95ppl. Details here: <https://www.gov.uk/government/publications/fuel-duty-extending-the-temporary-cut-in-rates-to-march-2025/extension-to-the-cut-in-fuel-duty-rates-to-march-2025>

3. What Routes?

Whether or not fuel duty can be applied is dependent on the end destination that a plane flies to. Fuel duty can definitely be applied to all fuel used in planes that fly domestically and to the European Economic Area³ (henceforth called “Europe”). Flights to other destinations are dependent on the exact wording in the air service agreements (ASAs) in place between the UK and the destination country. Each ASA is unique, and so legal analysis of each document would have to be conducted separately. This paper therefore splits its analysis into two: fuel used to destinations where it definitely can be taxed (“Europe”), and fuel used to destinations where it may be able to be taxed (“Rest of the world”).

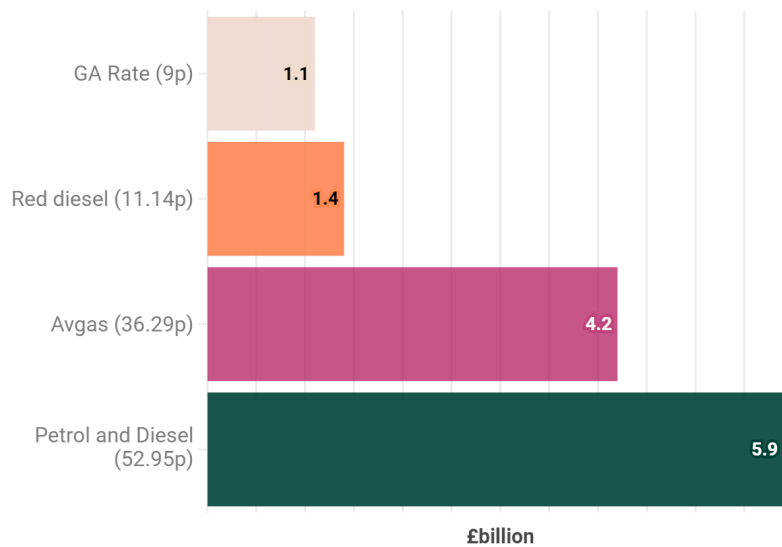
In 2023, 80% of departing flights were to UK or European destinations. This accounted for just under a third of carbon emissions. Conversely, flights to other destinations were just 20% of flights, but two-thirds of emissions.⁴

Since fuel duty can be applied on European flights, it has been a political choice made by previous chancellors that it has not been.

3.1. Revenue Raised

The below table shows what revenue would have been raised if fuel duty had been applied at the described rates in 2023 on all flights:

Revenues raised if fuel duty had been applied at the described rates in 2023 on all flights



Source: Transport & Environment UK



³ The EEA consists of the EU, plus Iceland, Liechtenstein and Norway. The EU-UK Trade and Cooperation Agreement specifies both parties shall not “prohibit the taxation of fuel supplied to aircraft” - [Q&A](#)

⁴ These statistics, and much more are taken from T&E’s *Above the Clouds*, which was published in April 2024. Available here:

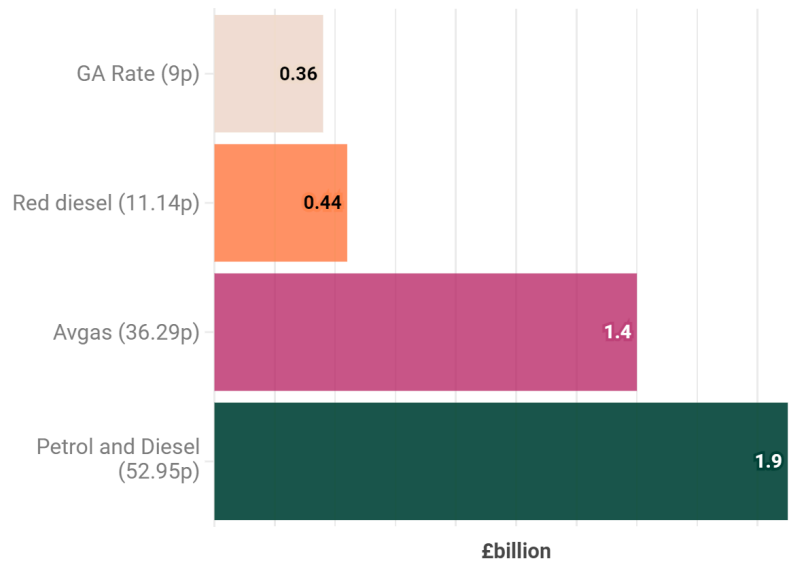
<https://www.transportenvironment.org/te-united-kingdom/articles/above-the-clouds-uk-aviation-emission-and-flight-trends-in-2023>



The UK Government could have raised a substantial amount of money had jet fuel been taxed in the way that other fuels are. As can be seen, had the rate matched road fuel duty, then £5.9 billion would have been raised. Had the rate matched what pleasure flyers pay, then £4.2 billion would have been raised. Had the rate matched what farmers pay, then £1.4 billion would have been raised. Had an introductory rate been used, then £1.1 billion would have been raised.

If rates were only applied to fuel burnt on European flights, then the below revenue would have been raised:

Revenues raised if fuel duty had been applied at the described rates in 2023 on all European flights

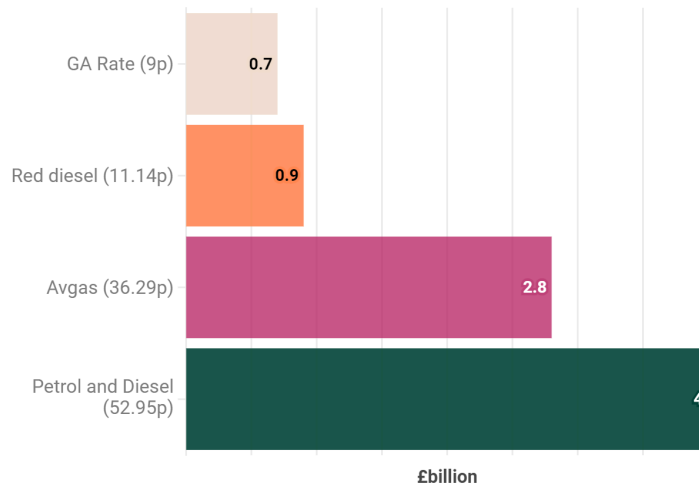


Source: Transport & Environment UK



If rates were applied to all other destinations, then the below revenue would have been raised from them:

Revenues raised if fuel duty had been applied at the described rates in 2023 to all flights to destinations outside of Europe



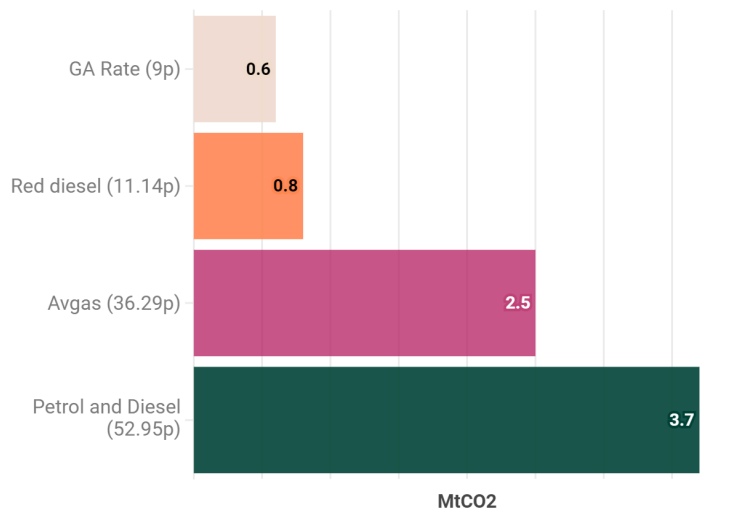
Source: Transport & Environment UK



4. Emissions Impact

As well as raising revenue, applying fuel duty last year would have had a direct climate impact. This table shows the emissions could have been 'saved' had the following duty rates been applied on all fuel uplifted to UK departing planes:

Emissions savings if fuel duty had been applied at the described rates in 2023 on all flights



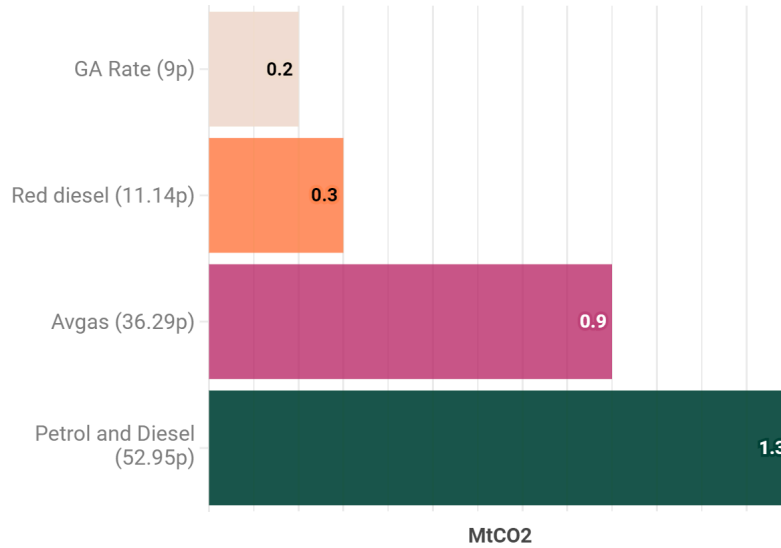
Source: Transport & Environment UK



Again, it is worth splitting this out into destinations where fuel duty could definitely have been levied, and destinations where it may be able to have been levied:

European Flights:

Emissions savings if fuel duty had been applied at the described rates in 2023 on all European flights

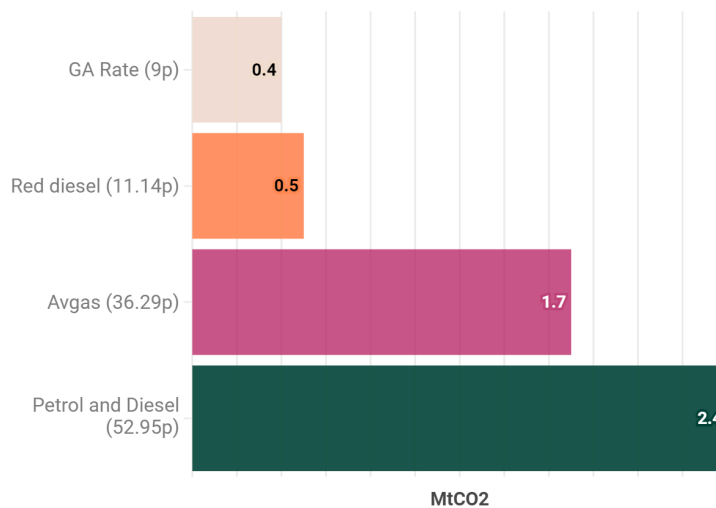


Source: Transport & Environment UK



Rest of the World:

Emissions savings if fuel duty had been applied at the described rates in 2023 on all flights to destinations outside of Europe



Source: Transport & Environment UK



Clearly applying duty at rates that are comparable to drivers or pleasure flyers has the most effect from an environmental point of view. 3.7 MtCO₂ would not have been emitted had duty been charged on all jet fuel uplifted to departing flights at the same rate as commuters and hauliers pay. For context, 3.7 MtCO₂ was just over 1% of total 2023 domestic UK CO₂ emissions, so a significant amount.⁵ Applying fuel duty is a useful decarbonisation tool whose use has been wilfully ignored by previous Governments. Crucially, this figure is a minimum climate impact, as it does not take into account the avoided non-CO₂ climate impacts aviation causes.

3. Conclusions and recommendations

There are no legal reasons why fuel duty could not have been applied to fuel used on the majority of flights that departed last year. It was a political decision by the then-Chancellor not to. The current Chancellor faces the same decision. Applying fuel duty makes sense environmentally and economically. It raises revenue at a time when revenue is sorely needed, and it directly reduces the emissions that would occur had it not been in place.

Commuters, hauliers, rail operators, homeowners and farmers have all paid fuel duty for decades. For the sake of the economy and the environment, it's time to end the unfair anomaly that allows the aviation sector to pollute with impunity whilst not paying any tax. This paper therefore suggests that the Government announce in the upcoming Autumn budget that:

1. Fuel duty is applied to jet fuel on routes where it definitely can be at a starting rate of 9 pence per litre, from 1st January 2025, annually raising the fuel duty until it matches road fuel duty in 2030.
2. An anti-tankering provision is implemented to ensure that airlines do not uplift additional fuel in other countries to avoid paying fuel duty in the UK. This should require airlines to uplift at least 90% of their fuel for departing flights at UK airports.

Further information

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⁵ 2023 statistics taken from:

<https://www.gov.uk/government/statistics/provisional-uk-greenhouse-gas-emissions-national-statistics-2023>

Annex - Methodological Note

It was assumed that under a long-running taxation scheme across all markets, increases in fuel costs were completely passed through to ticket prices and that market segments did not subsidise each other. This means that we have assumed that an increase in fuel costs for domestic flights was not passed onto the price of long-haul tickets, or vice versa. T&E is aware of the complexity of fare pricing and the impact of cost increases on ticket prices in different markets, as well as the range of estimates of cost pass-through in the literature.

The following elasticities were used:

	Domestic	Europe	Rest of World
Price elasticity of demand	-0.6	-0.95	-0.9

These are based on the elasticities [used by the Department for Transport](#). We assume that the majority of trips are return trips. This means that for trips to Europe and the rest of the world, we assume that the cost increase due to fuel duty applies to only half the full journey. In other words, fuel duty is not applied on the inbound leg and therefore the price of inbound flights does not rise.

It is worth noting that [the IEA recently published analysis suggesting that aviation elasticities may be closer to -0.1](#). If this is the case, then any fuel duty applied would raise more revenue than suggested in this paper, but reduce emissions by less.

Finally, we do not consider that airlines would tanker fuel in this analysis. Tankering can be addressed with policy, as recommended in this paper. Tankering is typically not an issue that would apply to the vast majority of domestic flights, as most fuel uplifted would be from a UK airport and thus subject to fuel duty. However, for flights to Europe, in absence of an anti-tankering policy this is a practice that would significantly influence the outcomes of applying fuel duty on aviation fuel. [T&E has previously analysed tankering at the EU level](#),⁶ but was beyond the scope of this analysis. For flights to the rest of the world, given that the vast distances require planes to be (mostly) fully fueled, and the aircraft restrictions of maximum landing weight (MLW), the scale of tankering would be significantly less, but also completely avoidable with policy. Therefore, the UK Government should implement anti-tankering regulations for all departing flights from UK airports.

⁶ As has the ICCT: <https://theicct.org/wp-content/uploads/2021/06/tankering-eu-SAF-mandate-apr2021.pdf>