Department for Transport

The Revenue Certainty Mechanism

Cost Benefit Analysis

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Contents

Glossary

AIA Aviation Impact Accelerator

AtJ Alcohol to Jet

BAU Business as usual

BOLR Buyer of Last Resort

BtL Biomass to Liquid

CAGR Cumulative Annual Growth Rate

CAPEX Capital Expenditure

CAPM Capital Asset Pricing Model

CBA Cost Benefit Analysis

CCUS Carbon Capture, Usage, and Storage

CfD Contract for Difference

CORSIA Carbon Offsetting and Reduction Scheme for International Aviation

DESNZ Department for Energy Security and Net Zero

DfT Department for Transport

ETS Emissions Trading Scheme

FTE Full-time Equivalent

GHG Greenhouse gas

GSP Guaranteed Strike Price

GVA Gross Value Added

HEFA Hydroprocessed Esters and Fatty Acids

IRR Internal Rate of Return

LCCC Low Carbon Contracts Company

LCF Low Carbon Fuel

MAR Mandate auto-ratchet

MFP Mandate floor price

MSW Municipal solid waste

NOAK Nth-of-a-kind

NPV Net Present Value

OPEX Operational Expenditure

ONS Office for National Statistics

PtL Power to Liquid

RCM Revenue Certainty Mechanism

SAF Sustainable Aviation Fuel

SAFM Sustainable Aviation Fuel Mandate

TAG Transport Appraisal Guidance

Executive summary

The government is committed to accelerating the transition to a greener aviation sector as we seek to make Britain a clean energy superpower and deliver economic growth across the country.

Sustainable aviation fuel (SAF) is set to play a key role in meeting our missions. However, uncertainty regarding the future cost of SAF and an undefined market price, has, to date, led to a lack of confidence over the revenue that SAF production will attract. This, in addition to perceived policy and regulatory uncertainty, has hindered the necessary investment into SAF production.

The Revenue Certainty Mechanism seeks to address these shortfalls, lowering the cost of capital and increasing the chances of first-of-a-kind projects reaching successful final investment decisions. It is a time-limited intervention which is designed to kickstart an industry.

This cost-benefit analysis (CBA) sets out the potential costs and benefits that may arise from the Revenue Certainty Mechanism. The analysis undertaken has been informed by internal and external expertise, modelling future SAF demand, production costs and financing costs. We estimate a counterfactual where there is no Revenue Certainty Mechanism, which is then compared against scenarios with the Revenue Certainty Mechanism. There is inherent uncertainty associated with this analysis - particularly with regards to the future mix of SAF fuels, production costs, domestic and international prices. Therefore, the analysis sets out the potential Revenue Certainty Mechanism costs and benefits across three different scenarios and different potential domestic SAF price paths.

Overall, the analysis estimates that the Revenue Certainty Mechanism is likely to demonstrate value for money. We consider the impact of the Revenue Certainty Mechanism on market prices, relative to a counterfactual where there is no Revenue Certainty Mechanism. We estimate a net present value of £78m, across 15 years. Scenarios where the counterfactual market price differs can lead to higher NPVs, or a scenario where the NPV is 0 or marginally negative (if no contracts were signed and small admin costs incurred). This last scenario would imply a global abundance of accessible SAF.

The costs associated with the Revenue Certainty Mechanism include administrative costs from running the scheme, and payments by the levied party if the market price were to differ to the strike price. However, this "payment difference" also results in a revenue to the other party and is accordingly treated as a transfer, in line with HMT Green Book practice. Therefore, it is not included in the NPV calculations.

The benefits associated with the Revenue Certainty Mechanism include reductions in the price of non-HEFA SAF due to the price certainty provided to the market by the Revenue Certainty Mechanism; and growth impacts to the nascent UK SAF industry (captured here via wage premia employment effects). Other key benefits such as providing the UK with energy security through domestic fuel production; and research and development spillovers from first-of-a-kind SAF production are also considered, however not monetised here. As a key decarbonisation measure, we expect the Revenue Certainty Mechanism to enable vital greenhouse gas emissions savings through SAF. These savings from SAF are considered within the SAF Mandate CBA hence are not double-counted here.

We are continuously working to improve our methodology and input data for this nascent industry, and we will update this analysis as and when new evidence is published. Additionally, the latest data will be monitored to help in the development and signing of contracts, with value for money naturally a consideration in deciding whether to agree contracts.

1. Policy rationale

Policy background

1.1 As we accelerate to net zero across the economy and deliver our Clean Energy Mission, tackling emissions in the transport sector remains imperative, with transport accounting for 36% of the UK's greenhouse gas emissions in 2023 when including international shipping and aviation[1]. Aviation is currently the second largest contributor to emissions from transport and, by 2040, it is set to overtake road vehicles as transport's largest emitter[2].

1.2 Government and industry are tackling aviation emissions through a variety of measures, although some technological solutions to reduce aviation emissions, such as zero emission flights, are at a relatively early stage of development and commercialisation. SAF is therefore one of the most effective ways to reduce aviation emissions right now, as it is available today as a 'drop-in fuel' that does not require modifications to existing aircraft. SAF is expected to play a critical role in decarbonising aviation up to and beyond 2050.

1.3 The government is clear that it wants to see the UK capture its share of the global SAF market by playing a leading role in its development, production and use. For production facilities, making the leap from lab to commercial scale has proven difficult as smaller demonstration facilities are capital intensive and often unprofitable. Commercial plants can then typically cost £600 million to £2 billion to reach economies of scale and tend to run at a loss during their first years of deployment[3]. First-of-a-kind plants often struggle to secure major investment from equity and debt providers due to several associated risks, including revenue certainty.

[1] DESNZ (2025), 2023 UK Greenhouse Gas Emissions, Final Figures. Available here
[2] Climate Change Committee (2025), The Seventh Carbon Budget Advice for the UK Government. Available here.
[3] Estimates are taken from examples of total CAPEX costs from Advanced Fuel Fund projects that are first-of-a-kind and of commercial scale

Problem under consideration

1.4 The government response to the publication of independent advice from Philip New 'Developing a UK Sustainable Aviation Fuel Industry'[4] defined key barriers to investment that SAF producers have faced so far:

- **Technology risk**. Advanced SAF technologies are at early technology readiness and require innovation and demonstration before they are ready for commercial deployment. Even then the risk remains that a plant will not operate as expected.
- **Feedstock risk**. There is significant competition for resources that can be used as feedstocks for SAF production. There is a risk that in the absence of long-term feedstock contracts, producers will not attract sufficient feedstocks to maintain forecasted production levels and revenues.
- **Construction risk**. Building a SAF plant presents risks that cause delays or impact the plants performance specifications. These could occur from ground condition, interface between different parts and underestimation of time and cost to build and commission.
- **Revenue certainty**. Due to uncertainty regarding the future cost of SAF and an undefined market price, there is a lack of confidence over the revenue that SAF production will attract.

1.5 The government is already helping to address technology risk through the Advanced Fuels Fund[5] and the UK SAF Clearing House[6]. In July 2022, the Advanced Fuels Fund was launched to provide grant funding to first-of-a-kind commercial and demonstration-scale projects in the UK. Its aim is to crowd in private investment and accelerate projects through development stages and towards final investment decisions.

1.6 The UK SAF Clearing House was also launched to address technology risk by providing coordination and grant support, to test and qualify new production pathways for SAF. It builds on existing expertise to help reduce uncertainty, cost and time barriers for new fuels, while maintaining safety and alleviating global testing pressures.

1.7 In terms of feedstock risk, the Department for Transport is working collaboratively with other government departments on helping to ensure SAF plants are able to attract sufficient feedstocks to maintain expected production levels.

1.8 The Department for Transport is also working collaboratively with other public sector bodies to consider whether and how construction risk could be mitigated.

1.9 The SAF Mandate was introduced on 1 January 2025 to drive demand for SAF in the UK and deliver emissions reductions up to 2.7 MtCO2e in 2030 and up to 6.3 MtCO2e in 2040. It places an obligation on aviation fuel suppliers to ensure

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[4] More information available here.
[5] More information is available here.
[6] More information available here.

a proportion of their fuel supplied is SAF. This starts at 2% in 2025 and reaches 10% by 2030 and 22% by 2040[7].

1.10 The SAF Mandate is largely a demand side measure. By issuing tradeable certificates that reward the supply of SAF based on emissions savings, there is also a financial incentive to supply. However, the government accepts that the Mandate alone may not provide sufficient long-term revenue certainty to secure investment in first-of-a-kind UK projects.

Rationale for intervention

Imperfect information and investor uncertainty

1.11 The SAF industry is nascent and there are uncertainties around costs of production, production technologies and viability of investments. This is especially the case for more advanced fuel production pathways, given the very high capital costs associated with non-HEFA SAF production and the high levels of technology risk: this uncertainty and imperfect information is likely to discourage investment and may lead to a scenario where domestic non-HEFA SAF production is too low, and the UK is therefore unable to meet its environment goals. Projects will continue to face revenue certainty barriers in the UK that impact on successful final investment decisions[8]. This is because there is:

- **No clear UK or global market price for non-HEFA SAF**. A nascent and variable price means predicting the price that SAF will trade at in the UK over the short and medium to long term (for example, the next 10 to 20 years) is uncertain.
- **Perceived policy and regulatory uncertainty**. Concerns of future regulatory changes, which could impact on future price dynamics and subsequent returns on investment. This includes the possible adjustment of UK SAF Mandate targets, impacting the balance of supply and demand and subsequent price movements. This also relates to the level of the buy-out price within the Mandate, which impacts the price that suppliers are willing to pay for SAF.
- **Projects competing for finance with other low carbon technologies**. Some other low carbon technologies already receive or are due to receive revenue certainty support. The low carbon electricity Contract for Difference (CfD) scheme has been in place since 2015 and a similar business model is being implemented for low carbon hydrogen production, carbon capture and greenhouse gas removal technologies. These business models are seen to increase investor confidence and lower the financing cost of projects in the UK. These revenue certainty schemes have created a precedent for investors, such as debt

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[7] Please see here for the full SAF Mandate cost-benefit analysis.
[8] More information is available in the Phillip New report (2023), Developing a UK sustainable aviation fuel industry.

financers. With all else being equal, these technologies could outcompete first-of-a-kind UK SAF plants for green financing.

1.12 The Revenue Certainty Mechanism mitigates these risks to providers of finance. The SAF Revenue Certainty Mechanism is intended to provide first-of-a-kind UK SAF projects with a guaranteed price for their SAF over a defined period; it is a private law contract; it is administered by an operationally independent counterparty; and it increases these projects' competitiveness for finance with other low carbon technologies. Reducing these risks can lower the cost of capital and increase the chances of first-of-a-kind projects reaching successful final investment decisions.

1.13 With the Revenue Certainty Mechanism supporting the establishment of first-of-a-kind SAF plants in the UK, it is expected that this will then pave the way for lower-cost UK SAF plants in the medium term when investors will have confidence in the market price and the first-of-a-kind technology has proven itself at commercial scale.

1.14 The Revenue Certainty Mechanism will help establish a thriving domestic industry that will drive the government's missions to make Britain a clean energy superpower, support the delivery of emissions reductions through the SAF Mandate, provide fuel security, and kickstart economic growth, bringing investment and good green jobs across the whole of the UK.

2. Policy options

Options considered

Business as Usual

2.1 The 'Business As Usual' scenario assumes that there is no Revenue Certainty Mechanism introduced, and there is no additional intervention in the UK SAF sector beyond what has already been announced through the Advanced Fuel Fund[9] and the UK SAF Clearing House[10].

2.2 The SAF Mandate is in place and sets an obligation on suppliers of aviation fuel to demonstrate that a given proportion of fuel supplied is SAF and suppliers receive certificates for each tonne of SAF supplied. The 'Business As Usual' scenario assumes limited domestic production of UK non-HEFA SAF: this is because of the high uncertainty around costs of production and the consequent inability of SAF projects to attract enough investment.

2.3 This aligns with emerging evidence from UK SAF producers: for production facilities, making the leap from lab to commercial scale has proven difficult as smaller demonstration facilities are capital intensive and often unprofitable. Commercial plants can then typically cost £600 million to £2 billion to reach economies of scale and tend to run at a loss during their first years of deployment. Non-HEFA SAF plants often struggle to secure major investment from equity and debt providers due to several associated risks, as highlighted in the previous section.

2.4 The costs and the benefits of an illustrative scenario where there is low domestic production and low feedstock availability have been assessed in Scenario C of the SAF Mandate CBA[11].

Non-Revenue Certainty Mechanism Interventions

2.5 Several non-revenue certainty mechanism interventions were considered in the early stages of policy development. A sub-set of the most prominent are

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[9] More information is available here.
[10] More information available here.
[11] Please see here for the full SAF Mandate cost-benefit analysis.

presented below. These focused on providing wider capital or financial support and incentives. However, risks were identified with each of these options, particularly in not addressing revenue certainty (in part or in full) as a key barrier to investment.

2.6 **Increased competition funding and 'icebreaker'** – the Advanced Fuels Fund is already supporting UK projects through development stages and towards final investment decisions. Consideration was given to increasing the overall funding available through the competition and the 'icebreaker' approach – whereby a large amount of funding is targeted at supporting the construction of one or two of the most promising projects, to get them built and prove technologies at scale. The Advanced Fuels Fund is helping reduce technology risk in projects and government has already made an additional £63 million available until March 2026. However, while this Fund can help support projects in making progress towards final investment decisions, it cannot provide revenue certainty. A portfolio approach has always been taken to support a diverse range of technologies and feedstocks. First-of-a-kind projects have inherent risks of failure. Were they to lead to an overreliance on a single fuel pathway (that may fail in the future), it could cause more systematic failure for the programme and the government's ambitions. An 'icebreaker' would increase these risks, and the impact of plant failure is greater because of the higher sunk costs. It is also unlikely that it could cover the total CAPEX of a project (expected to be £600 million to £2 billion), and so a successful final investment decision is still required for the remaining amount.

2.7 **Tax credits** – two types of tax credits were considered. Investment tax credits equivalent to a specific percentage of total capital investment, and production tax credits awarded based on a fixed rate per tonne of net removed CO2. The rates could differ between technologies and support UK projects if credits are set at a sufficient level. However, tax credits would place a financial burden on the Exchequer through reduced revenues and investors have indicated that it would not provide enough certainty in the medium to long term, due to the risk of policy changes. Furthermore, tax credits would mainly benefit businesses with sizeable tax liabilities unless tax credit trading markets were established. Establishing tax credit trading markets would significantly increase the complexity of a scheme and its delivery time.

Revenue Certainty Mechanism

2.8 The consultation published on 25 April 2024[12] confirmed our position that a revenue certainty mechanism will help to support future revenues and drive investment in SAF production in the UK. It then presented four shortlisted options as the most suitable to achieve this.

- **Guaranteed strike price (GSP)** – guarantees an agreed price per litre of fuel produced to SAF producers who choose to apply to the scheme, (similarities to low carbon electricity contracts for difference).
- **Buyer of last resort (BOLR)** – the counterparty steps in to purchase SAF certificates when the market price falls below an agreed level,

[12] More information is available here.

thereby guaranteeing an agreed minimum price for the producer's SAF certificates redeemed through the SAF Mandate.

- **Mandate auto-ratchet (MAR)** – the Mandate (and its HEFA cap) adjusts when there is an oversupply in the market, to bring the price of SAF back closer to the buy-out price.
- **Mandate floor price (MFP)** – includes a minimum price for certificates which is universally applied through the Mandate itself (in addition to the buyout price).

2.9 Each mechanism was subject to a multi-criteria assessment against a series of sub-principles derived from the overarching principles: investability, affordability and deliverability. The scoring outcomes were presented in the publication and the GSP received the highest overall score – and the highest score in investability and affordability.

2.10 Since the consultation, the government has confirmed its intention to proceed with a GSP. The GSP offers the highest level of confidence for investors, can be built on the established precedent of contracts for difference schemes, provides a clear claim process, and can be targeted at UK SAF plants.

2.11 GSP requires a private law contract to be concluded between the SAF producer and a counterparty (a government-backed entity). The agreed strike price is set to ensure the producer can always achieve this level of price for each unit of SAF supplied. When the market price exceeds the strike price, the producer makes payments of the difference to the counterparty. Equally, when the market price falls the counterparty makes payments of the difference to the SAF producer.

2.12 The GSP removes the risk of there being no clear UK or global price for non-HEFA SAF, by guaranteeing a price for a producer's SAF. Private law contracts also provide additional security to investors because they protect against political and legislative change and are administered by a government-backed counterparty with high creditworthiness.

Approach to funding the SAF Revenue Certainty Mechanism

2.13 The government has stated that the costs associated with the revenue certainty mechanism must be funded by the aviation industry. Aviation fuel suppliers are part of the industry's supply chain. This adheres to the policy statement on environmental principles in the Environment Act 2021, that states the costs of environmental damage should be borne by those causing it, rather than the person who suffers the effects of the resulting environmental damage, or the wider community (the "polluter pays" principle).

2.14 The costs associated with the revenue certainty mechanism includes payments under contracts between the producer and the counterparty and administration costs of the counterparty operating the scheme.

2.15 The government assessed several options for industry funding before taking a 'minded-to' position on creating a new levy. Costs of the scheme will be variable as the market price fluctuates and changes the payments flows between the producers and counterparty. A levy can accommodate this by having recurring charging periods where the amounts can change. It can also be administered based on forecasts and reconciled with actual data if required.

2.16 The government has considered the different stages in the aviation fuel supply chain and proposed placing the levy on aviation fuel suppliers for the following reasons:

- Placing the levy higher up the supply chain on aviation fuel suppliers could allow costs that are passed on to be distributed across more of the supply chain – this includes airlines, freight companies and passengers.
- Aviation fuel suppliers will benefit from the additional SAF production that the revenue certainty mechanism is designed to stimulate, since the SAF Mandate obligation to supply a minimum amount of SAF is placed on them.
- The revenue certainty mechanism will lower project risk and the cost of capital for producers, which will lower the cost of domestically produced SAF for aviation fuel suppliers.
- The SAF Mandate obligation is expected to fall on around 20 aviation fuel suppliers – reporting requirements will be standardised where possible to reduce the burden for providing information and administering the levy.

2.17 Individual levy contributions would be based on market share of aviation turbine fuel ('avtur') supplied in the UK over defined periods. Future development of the levy will wherever possible, align to the principles set out in the consultation that was published in March 2025: solvency, simplicity, policy coherence, market stability, flexibility, compliance, affordability and fairness.

3. Methodology

Modelling overview

3.1 The scope of this analysis covers the costs and benefits of setting up a Revenue Certainty Mechanism. The analysis considers three different illustrative scenarios, covering approximately the amount of domestic non-HEFA SAF needed to meet the SAF Mandate in 2030[13]. These scenarios should not be interpreted as what we expect to happen under the Revenue Certainty Mechanism, but a series of possible outcomes to account for the high level of uncertainty around non-HEFA SAF production: in reality, contracts and strike prices will be determined by the newest information available at the time of negotiations and based on the latest economic conditions. A detailed description of these illustrative scenarios is described below.

3.2 Throughout this analysis, the term ‘non-HEFA SAF’ is used to refer to pathways using non-oily feedstocks such as: forest residues, agricultural residues and municipal solid waste (MSW). It therefore excludes PtL, unless specified otherwise. This grouping could also be described as advanced waste SAF as it includes various methods of making advanced fuels from wastes and residues. This analysis builds on the modelling and evidence used in the preliminary consultation "Sustainable Aviation Fuels Revenue Certainty Mechanism: Revenue certainty options to support a sustainable aviation fuel industry in the UK"[14] and the funding consultation "Sustainable aviation fuel revenue certainty mechanism: approach to industry funding"[15]. We have continually worked to update our evidence and assumptions in our analysis, using external expertise to validate our work and enhance our evidence base. SAF remains a nascent industry with many production processes and technologies yet to reach commercial scale and estimating robust impacts in this area is challenging.

3.3 Figure 1 shows a simplified model map. The below section describes the model at a high-level, with individual assumptions set out in further sections.

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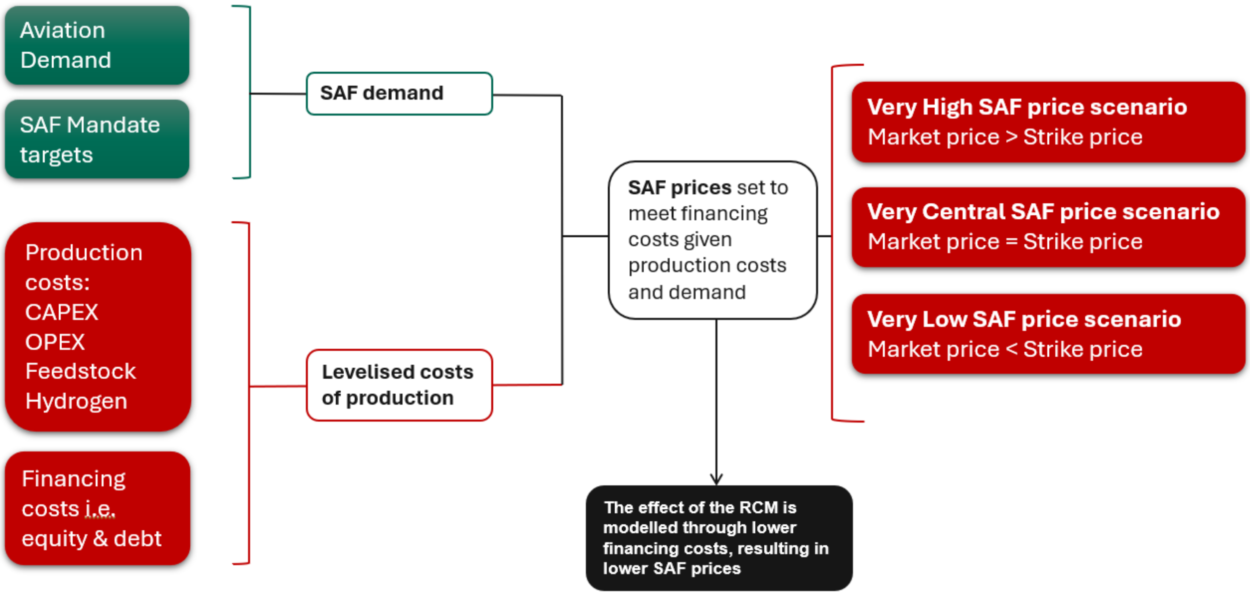
[13] This is approximately 300,000 tonnes per year in 2030, based on UK aviation demand and SAF Mandate targets.

[14] More information is available here.

[15] More information available here.

Figure 1: RCM Cost Benefit Analysis Model Map for domestic SAF production



3.4 The assumptions on projected aviation and fuel demand use DfT's Aviation Model. More details on this modelling are available in a separate DfT publication[16] and Annex A contains a summary of the key assumptions underpinning the aviation demand figures. The mandated level of SAF under the policy is presented as a percentage of aviation fuel used on UK-departing flights: the SAF mandate requires 2% SAF from 2025 gradually increasing to 10% in 2030 and 22% in 2040. SAF demand is estimated by combining aviation demand and the mandated levels of SAF.

3.5 The model estimates the total cost of producing SAF in the UK: Biomass-to-Liquid (BtL) is assumed to be the only non-HEFA SAF production pathway for our SAF mixes. This is a simplification of a complex and nascent market and BtL is not expected to be the only advanced SAF technology available in the UK. This analysis assumes no PtL production comes online in the UK in the counterfactual or in the presence of the Revenue Certainty Mechanism. This analysis does not cover HEFA SAF, given the Revenue Certainty Mechanism aims at supporting less established SAF production paths. The Government Response to the Revenue Certainty Mechanism Consultation sets this out in greater depth.

3.6 The model estimates the levelised cost of production, expressed as an average cost per tonne of SAF over a plant’s lifetime, and calculates the price that SAF producers will need to charge to meet a minimum internal rate of return (IRR) on investment after debt is paid. The price is therefore based on the cashflows required to meet debt and equity financing payments.

3.7 For each scenario, this calculation is performed for the three price paths modelled in this work: Central, Very High and Very Low. These are based on different assumptions around production costs.

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[16] More information is available here.

3.8 The potential liability associated with funding the Revenue Certainty Mechanism is calculated by estimating the size of the payments under the GSP mechanism, when the market price is higher or lower than the expected strike price. This analysis always assumes that the strike price is the estimated central price. In a scenario where SAF prices are very low, the funding costs of the scheme correspond to the difference in SAF prices between our very low and central price scenarios: this gives the costs on the levied industry. Similarly, for a scenario where prices are very high, the difference between the very high price and the central price scenario gives us a quantification of the plants' payments back into the scheme. In our cost-benefit analysis, this is treated as a transfer as per HMT Green Book guidance, because there is a matching benefit to another part of the industry when the cost of the levy arises.

3.9 A key benefit of the policy is to lower the cost of producing non-HEFA SAF in the UK, relative to what it would be in a counterfactual world without the Revenue Certainty Mechanism. In the counterfactual scenario, we assume a small amount of non-HEFA SAF comes online domestically at an estimated price; the UK otherwise will import non-HEFA SAF to meet its needs at that estimated price.

3.10 In the world with the Revenue Certainty Mechanism in place, fuel costs would be lower (because of lower financing costs) and domestic production increases, resulting in fewer imports. We seek to monetise this "fuel cost saving" relative to the above counterfactual world.

3.11 For example, if costs are lowered through the introduction of the Revenue Certainty Mechanism to the extent that the resulting price matches the counterfactual estimated price, then there is no "fuel cost saving" benefit attributable to the Revenue Certainty Mechanism, as that lower cost would have materialised anyway in the counterfactual. If we lower costs through the Revenue Certainty Mechanism to the extent that the resulting price is lower than the counterfactual estimated price, then there is a monetisable benefit. However, if we lower costs through the Revenue Certainty Mechanism only to an extent such that the resulting price is still higher than the counterfactual estimated price, then there is no "fuel cost saving" as buyers could access cheaper fuels elsewhere. We monetise this benefit by looking at the change in the price per tonne of non-HEFA SAF.

3.12 This analysis also estimates the growth impact in terms of changes to Gross Value Added (GVA) from higher productivity and the administrative costs to set up the Revenue Certainty Mechanism. These are calculated outside the main model and are included in the final results.

Modelling assumptions

Cost of producing SAF

3.13 DfT commissioned PwC to develop a model for assessing the potential financial impacts of two options for a revenue certainty mechanism. The results of this model were used in the April 2024 consultation "Sustainable Aviation Fuels Revenue Certainty Mechanism: Revenue certainty options to support a sustainable aviation fuel industry in the UK"[17]. DfT has built upon the model's functionality, amending SAF price scenarios and key assumptions around SAF production costs and financing costs, based on the latest available information.

3.14 Our estimates around the cost of production are informed by analysis carried out by the Aviation Impact Accelerator (AIA), led by Cambridge University's Whittle Laboratory. This AIA analysis was funded by DESNZ on behalf of DfT and builds on the work the AIA produced for the SAF Mandate Cost-Benefit Analysis[18]. DfT asked the AIA to produce updated costs of production for different SAF pathways and feedstocks, using the latest available evidence in their own bottom-up techno-economic modelling, which considers capital and operating costs of different SAF technologies. The AIA inputs draw on a wide range of data sources, including peer-reviewed academic journals, technical literature and industry-wide questionnaires. Beyond this, the AIA have conducted a large validation exercise to ensure their figures are in line with other available literature.

3.15 There is significant uncertainty surrounding SAF production costs, due to the early stage of technology development and feedstock availability. The AIA provided production cost estimates based on CAPEX, OPEX, feedstock and hydrogen costs. DfT asked the AIA to incorporate DESNZ's latest internal unpublished UK hydrogen cost estimates in their analysis[19]. The AIA accounted for uncertainty in their estimates by testing different levels of optimism around SAF plant assumptions, feedstock cost, cost of electricity, electrolyser assumptions and Direct Air Capture assumptions. These varied assumptions were used by DfT to create three illustrative price paths based on different levels of optimism – central price (all levers set to expected), very high price (all levers set to pessimistic) and very low price (all levers set to optimistic). The Central price path is assumed to be the agreed strike price while the Very Low and Very High paths represent the highest and lowest estimated SAF prices - attempting to reflect the uncertainty around future SAF costs.

Financing costs

3.16 This analysis acknowledges the challenges first-of-a-kind SAF projects currently face to access debt without an intervention (like the Revenue Certainty Mechanism) to reduce the risk profile of a SAF project. Therefore, we assume

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[17] More information is available here.
[18] Please see here for the full SAF Mandate cost-benefit analysis.
[19] The latest hydrogen cost estimates produced by DESNZ will be published in due course.

without the Revenue Certainty Mechanism, UK projects will be financed with 100% equity - this represents our counterfactual scenario.

3.17 PwC conducted a thorough analysis of the SAF sector for DfT, calculating an estimate for the cost of equity for a SAF plant in a market environment without the Revenue Certainty Mechanism. This involved qualitatively assessing the risks identified for a project, developing a baseline Capital Asset Pricing Model (CAPM)[20] and carrying out a risk assessment to quantify an unsystematic risk premium not captured by the CAPM. This work was used for our counterfactual assumption, as the scope of PwC's analysis is working with a 100% equity financing assumption for the SAF sector.

3.18 The assumptions informing the cost of equity and debt for domestically produced SAF in the presence of the Revenue Certainty Mechanism draw on available literature around similar support schemes. The DESNZ Contract for Difference (CfD) scheme offers a comparator for the Revenue Certainty Mechanism. There are several estimates published on the expected impact of the CfD scheme on the cost of capital[21]. These show the cost of equity in the presence of debt for several renewable energy sectors once the CfD scheme is in place. Some energy sectors are comparable to SAF in terms of technological development and risk profile. As SAF production faces significantly higher risks compared to the more established renewable sectors (such as solar or wind), CCUS production has been chosen as the most comparable risk profile to SAF. This analysis proxies the cost of equity of SAF projects with estimates from CCUS projects. BEIS (2018)[22] estimates that the cost of equity for CCUS projects are between 13.1% and 17.4% in real terms.

3.19 Assumptions on the cost of debt for SAF production in the UK are informed by engagement with stakeholders. DfT have engaged with stakeholders over the past two years to understand the appetite and the impact the Revenue Certainty Mechanism scheme could have on the financing of non-HEFA UK SAF production projects. This included discussions with SAF producers, banks, public finance institutions and other stakeholders, which led to DfT gaining a better understanding of the financing challenges for an early UK non-HEFA SAF production project.

3.20 The cost of debt is influenced by the risk profile perceived by banks of a project, whereby a project with a higher risk profile will demand a higher cost of debt. The cost of debt is also affected by the prevailing financial markets and macroeconomic environment. At the time of writing, based on our engagement

[20] The Capital Asset Pricing Model (CAPM) is a risk premium model which asserts that the required return of holding an asset should be no less than the return on holding a riskless asset plus a premium for the risk associated with holding the target asset. The risk premium required for holding the target asset depends upon the relative riskiness of the target asset when compared with a well-diversified portfolio of similar assets.

[21] BEIS (2020) Cost of capital update for electricity generation, storage and DSR technologies, DECC (2013) Changes in Hurdle Rates for Low Carbon Generation Technologies due to the Shift from the UK Renewables Obligation to a Contracts for Difference Regime.

[22] More information is available here (Table 1).

with stakeholders, we have assumed a cost of debt of 7% for non-HEFA SAF domestic production.

3.21 Projects with lower risk profiles can generally achieve higher gearing ratios than riskier projects. With the introduction of the Revenue Certainty Mechanism, based on our engagement, we have assumed projects of this nature could achieve gearing levels of 60%.

3.22 As explained above, the cost of equity and debt depend on construction, operational and technology risks as well as the current and future economic conditions. The nature of these is likely to change in the future, so there is uncertainty associated with the cost of equity and debt assumptions. Therefore, we will continue to monitor these assumptions and update them as new evidence becomes available.

3.23 Table 1 shows the assumed cost of equity and debt for domestically produced non-HEFA SAF in nominal terms.

Table 1: Cost of equity and debt assumptions

	Without the RCM	**With the RCM**
Cost of equity (internal rate of return)[23]	19.1%	17.6%
Cost of debt	N/A	7%

3.24 These values are in nominal terms. We used a mid-point of the different CCUS estimates and CPI inflation from the OBR[24] to convert from real to nominal terms using the Fisher formula: $(1 + nominal\ rate) = (1 + real\ rate) * (1 + inflation)$.

Final prices

3.25 To estimate the final price of SAF, the costs of production from the AIA have been combined with the cost of capital assumptions to estimate the price that SAF producers will need to charge to meet a minimum internal rate of return (IRR), after debt is repaid (if any). The SAF prices assumed in this analysis are the levelised costs of production and reflect the high cost of capital in earlier years and capture the high financing costs that first-of-a-kind plants will have to repay to either banks or investors. These prices may not represent non-HEFA SAF prices in the long-term when the construction, technological and market risks could be substantially lower than now. These assumed non-HEFA SAF prices therefore reflect that the Revenue Certainty Mechanism is a time-limited measure, while market prices are uncertain, to help scale early first-of-a-kind technologies while supporting a competitive market for non-HEFA SAF production.

3.26 This analysis does not model any potential changes to SAF prices over time beyond the increases due to inflation: this assumption is based on the fact that a fixed strike price over 15 years is likely to be agreed in the contract. Annex B

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[23] The costs of equity in Table 1 were produced assuming the SAF is BtL.

[24] Office for Budget Responsibility, March 2024 long-term economic determinants.

shows the resulting non-HEFA SAF prices for the UK production under the Revenue Certainty Mechanism and the counterfactual prices across all scenarios.

3.27 There is high uncertainty around future price paths and how technological progress, feedstock availability and overall global supply will impact SAF prices in the future. These are outside the scope of this analysis. These factors will be taken into account when negotiating contracts and strike prices: these will be determined by the newest information available at the time of negotiations and based on the latest economic conditions.

Counterfactual scenario

Domestic production in the absence of the Revenue Certainty Mechanism

3.28 To estimate the costs and benefits of the Revenue Certainty Mechanism, this analysis considers a counterfactual scenario where there is no additional support to produce non-HEFA SAF domestically in the UK, beyond policies already in place, like the Advanced Fuel Fund[25]. In the absence of the Revenue Certainty Mechanism, this analysis assumes that the UK would rely mostly on imports and a limited domestic production to meet the SAF Mandate.

3.29 This compares to the policy scenario, which models higher UK non-HEFA SAF production due to the Revenue Certainty Mechanism. The difference between these two cases represents the impact of the Revenue Certainty Mechanism. As set out in paragraph 3.2, non-HEFA SAF consists solely of advanced waste SAF. Both scenarios assume a binding HEFA cap and the PtL sub-mandate in place.

3.30 This analysis assumes no PtL production comes online in the UK in the counterfactual or in the presence of the Revenue Certainty Mechanism. Given the estimated UK PtL production costs and the SAF Mandate buy-out price for the PtL fuel obligation – set at £5 per litre – this analysis has highlighted that PtL could face significant challenges to production in the UK. In practice, expected or actual UK PtL production costs could vary from these estimates. We are considering options that could support the UK PtL industry, and these are not accounted for in this analysis.

3.31 To estimate UK non-HEFA SAF production without the Revenue Certainty Mechanism, the non-HEFA UK capacity has been modelled using Argus Media's SAF and Renewable Diesel refinery capacity dataset[26]. This is a list of SAF plants around the world with their operational year, technology and expected SAF capacity up to 2040. There are several UK non-HEFA plants in the Argus dataset due to come online between 2026 and 2030. This evidence has been supplemented with evidence from the plants supported by the Advanced Fuel Fund[27]. For simplicity, this analysis assumes that all non-HEFA

[25] More information is available here.

[26] Argus Media sustainable aviation fuel and renewable diesel (HVO) refinery database (Accessed February 2025).

[27] More information is available here.

SAF produced in the UK is BtL: this is a simplification for the purpose of the modelling - we acknowledge in practice that technology pathways may differ.

3.32 Given the inherent uncertainty in SAF projects and the extent to which they will reach full capacity, this analysis uses approximately 25% of the Argus database nameplate capacity for UK non-HEFA SAF production in 2030 as a basis for modelling in the counterfactual. This is a lower level of capacity than the UK non-HEFA SAF production modelled with the Revenue Certainty Mechanism. It should be recognised that this is an assumption for modelling purposes and that actual operational capacity outside the Revenue Certainty Mechanism may be higher than this, and more projects incentivised by the SAF Mandate could come forward successfully.

3.33 To further account for uncertainty around non-HEFA SAF development, an annual failure or attrition rate of approximately 4% has been applied each year for 10 years after the first year of production. The 4% annual rate is based on the full sample average of available years for the speculative grade default rate from S&P Global data[28]. The decision to use the speculative grade is based on engagement with stakeholders. To outline the impact of this rate, applying it each year for 10 years, in the absence of any other changes, leads to a reduction of around 30% from the first year.

3.34 Separately from the annual survival rate, a 15% compound annual growth rate (CAGR) is applied post-2030 to the UK non-HEFA SAF capacity. This is consistent with the CAGR assumption for advanced SAF in the SAF Mandate cost-benefit analysis[29].

3.35 Finally, an 85% capacity factor has also been used to reflect at what capacity plants operate at relative to full capacity all the time. This may capture some potential difference between reported expected nameplate capacity and outturn capacity for plants.

3.36 The amount of SAF that can be imported to the UK will primarily be constrained by the global SAF production capacity. For simplicity, this work always assumes the HEFA cap binding and any shortfall in non-HEFA SAF will be met through imports. This analysis focuses on the Revenue Certainty Mechanism and its potential impacts across different illustrative scenarios and does not aim to make an assessment of feedstock constraints and global availability. We consider different counterfactual prices (i.e. what the market price would be in absence of the Revenue Certainty Mechanism, looking at imported non-HEFA SAF) and compare whether the introduction of the Revenue Certainty Mechanism results in a fall in the projected market price that is greater/equal/less than that counterfactual price. See Annex B for our assumed non-HEFA SAF prices.

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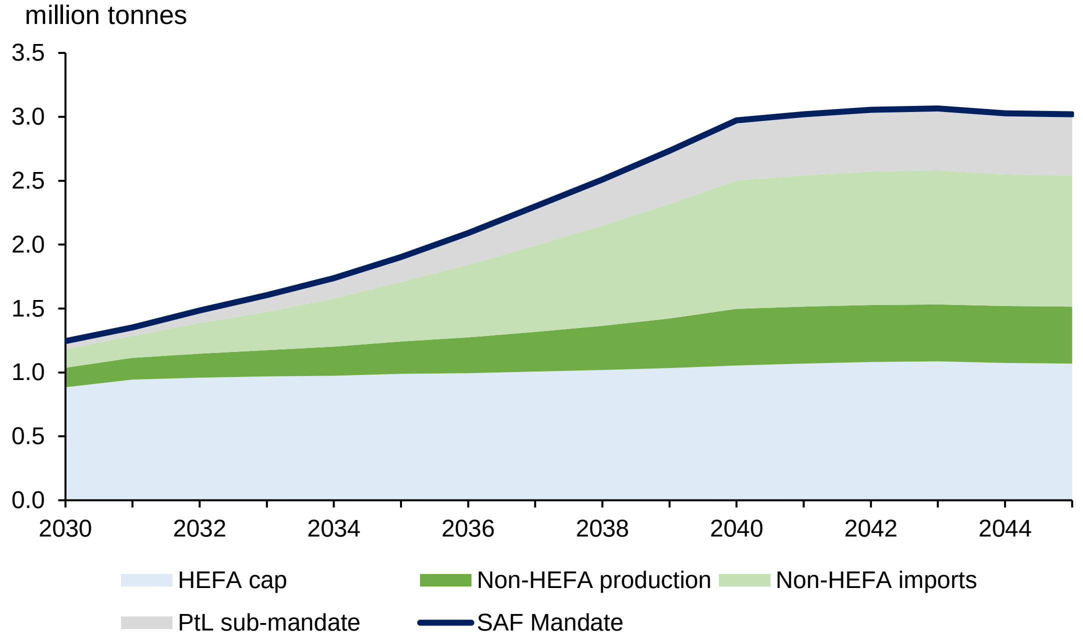
[28] S&P Global (2024) Default, Transition, and Recovery: 2024 Annual Global Corporate Default And Rating Transition Study

[29] Please see here for the full SAF Mandate cost-benefit analysis. Global and country-level electricity production statistics are used alongside historic biofuel production to understand the range of compound annual growth rates for various energy vectors from 2000-2020 (here).

3.37 Figure 2 below shows the counterfactual SAF mix assumed in this analysis.

Figure 2: Counterfactual scenario SAF mix[30]



Policy scenario

Domestic production with the Revenue Certainty Mechanism

3.38 The SAF mix in our policy scenario is based on the targets in the SAF Mandate. As this assumes a binding HEFA cap and the PtL sub-mandate being in place, the SAF mix in the policy scenario closely reflects the one used in the counterfactual. However, the key difference is higher domestic production of non-HEFA SAF has been assumed based on the volume produced under the revenue certainty contracts. Again, for modelling simplification, all non-HEFA SAF produced under the Revenue Certainty Mechanism is assumed to be BtL using Municipal Solid Waste (MSW) as feedstock.

3.39 This analysis assumes that, under the Revenue Certainty Mechanism, 300,000 tonnes of non-HEFA SAF are produced each year. This is an indicative amount for the purpose of modelling. 300,000 tonnes per year could approximately represent 3 medium-to-large-sized plants or 5 small-to-medium-sized plants. This capacity assumption reflects the fact that the Revenue Certainty Mechanism is a time-limited measure, while SAF market prices are uncertain, to help scale early first-of-a-kind technologies.

3.40 The volume produced under the Revenue Certainty Mechanism will be agreed under private law contracts of different value and size. For modelling purposes, we assume that all contracts are signed between 2027 and 2029 and that plants become operational in 2030, with the Revenue Certainty Mechanism contracts covering the 15 years from 2030 and 2044. While some UK plants have

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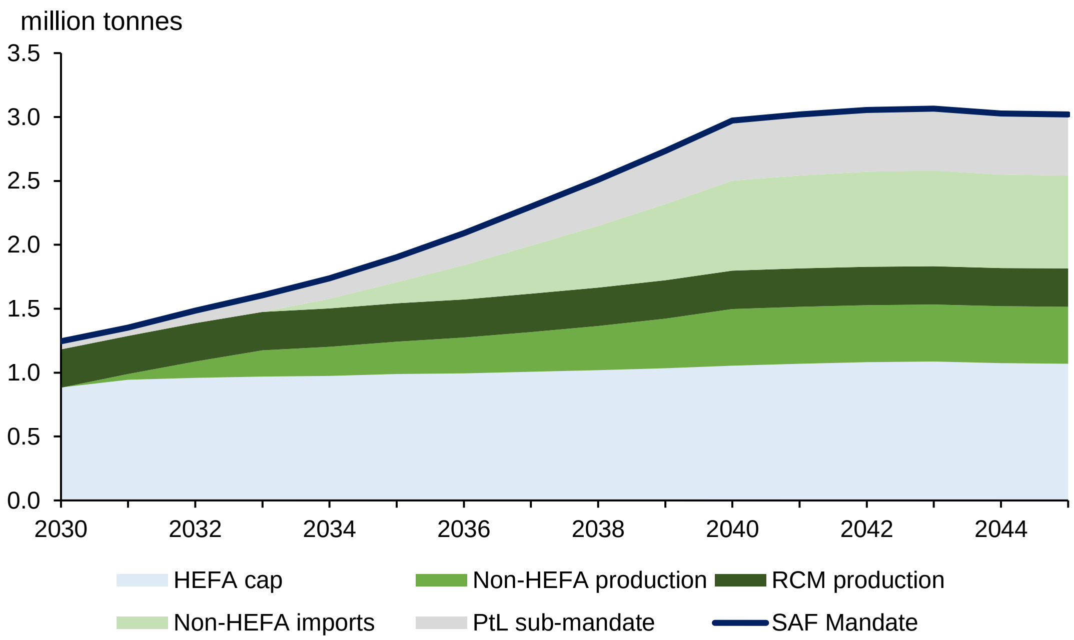
[30] Non-HEFA in Figure 2 refers to non-PtL SAF i.e. assumed to be BtL SAF in our modelling.

indicated they could become operational before 2030, this simplified conservative assumption accounts for possible delays in technological readiness. A plant must be built and produce fuel before payments under revenue certainty contracts are possible and we do not expect plants to be fully operational immediately after contracts are signed.

3.41 As before, any shortfall in non-HEFA SAF is assumed to be met through imports. However, the reliance on imported non-HEFA SAF is lower than in the counterfactual scenario, as a greater volume of non-HEFA SAF is domestically produced and is assumed to replace non-HEFA SAF imports.

3.42 Figure 3 below shows the Revenue Certainty Mechanism policy SAF mix assumed in this analysis.

Figure 3: Revenue Certainty Mechanism scenario SAF mix[31]



GVA impacts from higher productivity

3.43 One of the aims of the Revenue Certainty Mechanism is to support non-HEFA SAF plants and kickstart production of non-HEFA SAF in the UK. This has the potential to drive growth and can support good green jobs across the UK. This analysis estimates the impact of the Revenue Certainty Mechanism on jobs and calculates the resulting impact on Gross Value Added (GVA). Direct jobs (i.e. by the Revenue Certainty Mechanism projects) and indirect jobs (i.e. in the wider supply chain) are estimated.

3.44 To estimate the total number of direct jobs required to produce 300,000 tonnes per year of non-HEFA SAF, this analysis draws on evidence from the projects supported by the Advanced Fuel Fund. These values are then confirmed

[31] Non-HEFA in Figure 2 refers to non-PtL SAF i.e. assumed to be BtL SAF in our modelling.

through evidence from the DfT Green Jobs Model[32]. Both of these sources suggest a similar estimate, leading to our assumption of 0.0025 direct jobs[33] needed, on average, to produce a tonne of non-HEFA SAF, with a range between 0.002 and 0.003[34]. This range is used in our scenario analysis to account for uncertainties in job production.

3.45 To translate the impact of higher productivity from direct jobs into Gross Value Added, this analysis uses a standard wage premium approach, and proxies the salaries in the SAF industry with similar manufacturing industries. Specifically, this analysis uses "manufacture of coke and refined petroleum products"[35] as a proxy, given the similarities in the production process between petroleum fuels and SAF which is likely to require similar labour force skills. The average salary in this industry is compared to the average economy salary to estimate the wage premium. By combining this with the estimated number of direct jobs, the direct jobs productivity benefit is calculated. All wage data are from the 2022 Annual Survey of Hours and Earning[36] and the number of jobs in each industry are taken from the 2022 Business Register and Employment Survey[37].

3.46 To assess the number of indirect jobs, this analysis estimates how many indirect full-time equivalent (FTE) jobs are supported by one job in the SAF industry. To do so, ONS employment multipliers are used[38] to assess how many indirect FTEs are supported by 1 FTE in our industry. To estimate the wage premium of indirect jobs for the SAF industry, 2022 ONS input-output tables[39] are used to quantify how much of the output of the SAF industry depends on intermediate industries as a proportion. This is then adjusted for the share of labour costs and transformed into FTE-equivalent. The final step is to multiply by the wage premium for each intermediate industry following the same methodology as described in 3.45 for the wage premium calculation. By combining the indirect wage premium with the estimated number of indirect jobs, the indirect jobs productivity benefit is calculated. Similarly to above, manufacture of coke and petroleum products is used as a proxy for SAF throughout this analysis.

3.47 Two key adjustments are subsequently made. Firstly, the same assumptions regarding project survival are made as referenced previously. Secondly, we assume that only some of these economic benefits are additional, meaning they are due to the Revenue Certainty Mechanism only and would not have been realised otherwise. In lieu of SAF-specific additionality (due to the nascent

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32 Research carried out by Ricardo for DfT in 2024 as part of the Net Zero Transport Growth Opportunities and Impacts Programme. This research will be published on gov.uk in due course.

33 Direct jobs refer to the jobs needed for the direct production of SAF, rather than the wider jobs in the supply chain (indirect jobs).

34 The jobs/t per year estimated through AFF is, on average, 0.0026. When focusing on non-HEFA non-PtL plants, the estimate is 0.0022. The DfT Green Jobs Model estimated an average value of 0.0025 and a range of 0.002-0.003.

35 This includes the transformation of crude petroleum and coal into usable products. The dominant process is petroleum refining which involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

36 ONS publish ASHE data here.

37 This is available on NOMIS (accessed March 2025).

38 ONS publish employment multipliers here (2019 multiplier has been used).

39 ONS publish input-output tables here.

nature of the industry), we use additionality evidence from the Regional Growth Fund as a proxy. It found that, on average, 27% of the growth in employment seen in the supported businesses was additional[40], with a range of 21% to 32%.

Administrative costs of the scheme

3.48 The preferred design option of a Guaranteed Strike Price (GSP) involves a private law contract between UK SAF producers and a counterparty (a government agency), setting the strike price that a producer will receive for eligible SAF over a period. Where the reference price exceeds the strike price, the producer pays the difference to the counterparty. Where the reference price is below the strike price, the producer receives a payment for the difference from the counterparty.

3.49 The counterparty's primary role is to issue the contracts, manage them during the construction and delivery phase and make payments where required. The counterparty will require funding: these administrative costs will be levied on industry in addition to the difference payments for the Revenue Certainty Mechanism.

3.50 DfT have worked closely with the counterparty for the lower carbon electricity Contracts for Difference (CfD) scheme, the Low Carbon Contracts Company (LCCC), to understand possible administrative costs for the Revenue Certainty Mechanism. This analysis builds on figures derived from LCCC annual reports and direct quotes from LCCC where other evidence was not available. We expect the role of the counterparty to be similar to the role LCCC has in administering the CfD scheme and therefore LCCC data are the best proxy to estimate the administrative costs of the Revenue Certainty Mechanism.

3.51 This analysis uses the 2024 LCCC Annual Report[41] to proxy OPEX costs needed to issue and manage revenue certainty contracts: these include staff wages, social security costs, legal and IT consultancy costs, costs for potential legal disputes and HR-related costs. The OPEX cost per contract was calculated from the total OPEX costs divided by the number of contracts in operation that year. The CAPEX costs were direct quotes from LCCC for one-off start-up costs and regular system maintenance: these are based on previous costs LCCC sustained as the counterparty for the CfD scheme. OPEX and CAPEX costs were combined to estimate the cost for one contract and the cost of any additional contract after the first. As mentioned previously, this analysis assumes that the Revenue Certainty Mechanism will cover a volume of approximately 300,000 tonnes per year[42].

3.52 There may be higher costs during the initial implementation period; or the skills profile of the staff might be different to administer non-HEFA SAF contracts compared to other low carbon energy projects. Additionally, the approach to

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[40] BEIS(2022), Regional Growth Fund Evaluation.
[41] More information available here.
[42] There is uncertainty about the size of non-HEFA SAF plants. We estimate that 300,000 tonnes per year could approximately represent from 3 medium-to-large-seized plants to 5 small-to-medium-seized plants. To avoid underestimating the administrative costs, this modelling assumes 5 contracts are agreed.

allocating revenue certainty contracts has not yet been agreed and therefore any additional cost of allocating contracts has not been modelled. Given this uncertainty, a 20% premium has been applied to the overall administrative costs.

Summary of core scenarios considered

3.53 To reflect the significant uncertainty related to the future price of non-HEFA SAF and the impacts of the Revenue Certainty Mechanism on the UK SAF industry, the costs and benefits of the Revenue Certainty Mechanism are presented against three illustrative scenarios. Table 2 summarises the assumptions used for each of these scenarios.

3.54 We have set out three scenarios that seek to capture uncertainty around what we assume the counterfactual price to be (set by the price of imported non-HEFA SAF) and how it compares to modelled future market prices of domestically produced non-HEFA SAF. This is done in the model by adjusting the financing costs and profile of imports, as a mechanical way to consider the differing price effects of the counterfactual, as DfT do not have detailed data around SAF production costs abroad. This is not an attempt to estimate the price of imported non-HEFA SAF, but a way to show how different counterfactual prices impact possible fuel cost savings. See Annex B for more detail.

3.55 In Scenario 1, the counterfactual price is higher than the market price following the Revenue Certainty Mechanism intervention (referred to as 'the RCM market price'). In Scenario 2, the counterfactual price is the same as the RCM market price. In Scenario 3, the counterfactual price is lower than the RCM market price. This results in revenue certainty contracts being signed in Scenario 1 and 2, while we assume no contracts are signed in Scenario 3 (if they were to be, then there would be a cost).

3.56 These scenarios are **illustrative**, to reflect the uncertainty around non-HEFA SAF production and prices. Inevitably, a wide range of possible outcomes are therefore shown. This being said, it is worth noting that Scenario 3, the case where cheaper non-HEFA SAF could be accessed elsewhere rather than from revenue certainty contracted non-HEFA SAF, represents a world where there is abundant non-HEFA SAF worldwide. This may reduce the need to sign revenue certainty contracts: this means that most of the costs and benefits of the Revenue Certainty Mechanism will not be realised in practice. The need to sign revenue certainty contracts is clearly something that the government will actively monitor and factor into future decisions.

Table 2: Assumptions varied in the scenarios considered in this RCM Cost Benefit Analysis

Assumptions	Scenario 1	Scenario 2	Scenario 3

Price differential between counterfactual price and future RCM price	Through lower financing costs, the Revenue Certainty Mechanism allows UK production of non-HEFA SAF to be more competitive and at a lower price than what the sector would have paid without the Revenue Certainty Mechanism (with the UK reliant on imports to meet the SAF Mandate).	Through lower financing costs, the Revenue Certainty Mechanism reduces domestic production costs to an equivalent price to what the sector would have paid without the Revenue Certainty Mechanism (with the UK reliant on imports to meet the SAF Mandate) and make the UK SAF industry competitive with international SAF.	Financing costs aren't lowered extensively such that the Revenue Certainty Mechanism reduces production costs to a level still above the counterfactual price. This implies non-HEFA SAF is abundant and traded relatively cheap internationally.
Jobs needed to produce 1 tonne of SAF	0.003	0.0025	0.002
Number of direct SAF jobs supported	900	750	0
Additionality of economic impacts	32%	27%	N/A

4. Costs and Benefits

4.1 This section summarises the main monetised and non-monetised costs and benefits of the Revenue Certainty Mechanism, to estimate the Net Present Value (NPV) of the scheme in a given scenario. All costs and benefits are shown in real terms, using 2024 prices.

Table 3: Summary of costs and benefits considered

Monetised Costs	Monetised Benefits
Administrative costs	Lower costs of financing SAF production/lower SAF prices
Costs arising from RCM difference payments (treated as a transfer)	Revenue arising from RCM difference payments (treated as a transfer)
	Growth impact from higher productivity

Non-Monetised Costs	Non-Monetised Benefits
Other costs arising from agreeing a contract (e.g. legal costs)	Energy security
Possible payment defaults	R&D spillovers
	Greenhouse Gas emission savings

Costs

Administrative costs

4.2 The admin costs of the Revenue Certainty Mechanism are summarised in Table 3, as calculated by the methodology set out in Section 3. This analysis assumes that administrative costs are the same across the different price paths and for Scenario 1 and 2. For Scenario 3, as no revenue certainty contracts are signed off, admin costs only cover CAPEX and OPEX costs for a limited number of years[43].

[43] Admin costs for Scenario 3 assume that all set-up CAPEX costs are spent regardless of whether contracts are signed. They also include OPEX costs for the first 5 years to reflect upfront spend on staff to acquire the skills and resources needed to administer contracts.

Table 3: Administrative costs arising from the RCM

Cost over 15 years (£ millions, 2030-2044)[44]		Scenario 1	Scenario 2	Scenario 3
Administrative costs	Discounted	£17.1	£17.1	£7.2
	Undiscounted	£25.3	£25.3	£9.1

Difference Payments

4.3 The expected difference payments for the levied industry and SAF producers have been covered in the March 2025 consultation "SAF revenue certainty mechanism: approach to industry funding"[45]. **As there is a matching benefit to another part of the industry, this is considered a transfer**.

4.4 Since the consultation, this analysis has been refined further and updated with the latest economic data and financing assumptions. In all scenarios, the Revenue Certainty Mechanism will give price certainty to the SAF plants and therefore the magnitude of the difference payments will not affect the monetised costs that determine the NPV. It will however impact the resulting cost per passenger outlined later in this document and may influence non-monetised costs (and benefits).

4.5 Across our scenarios, the Revenue Certainty Mechanism covers the amount of domestic non-HEFA SAF needed to meet the SAF Mandate in 2030, which is approximately 300,000 tonnes per year. At the extremities of our price ranges, if the SAF price is higher than the agreed strike price, SAF producers would pay back approximately £3.9 billion over 15 years. The levied industry would incur an estimated payment of £3.2 billion over 15 years when our lowest estimated SAF price is below the strike price. The 15 years considered are between 2030 and 2044 and these values are discounted.

4.6 These difference payments, shown in Table 4, differ by price path, but do not vary in Scenario 1 and 2, where revenue certainty contracts are signed. The difference payments are 0 in scenario 3, where revenue certainty contracts are not signed. Additionally, these figures differ from the March 2025 consultation because a different amount of non-HEFA SAF has been modelled, and a series of modelling updates made [46]. Annex B contains all the prices assumed for this analysis.

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[44] Costs are modelled between 2030 and 2044, in practice, some start-up costs will occur before the Revenue Certainty Mechanism contracts start in 2030. These start-up costs are included in the first year of admin costs.

[45] More information is available here.

[46] In the March 2025 consultation "SAF revenue certainty mechanism: approach to industry funding", a plant producing 100,000 tonnes per year was modelled alongside a scenario with the Revenue Certainty Mechanism covering the amount of domestic non-HEFA SAF needed to meet the SAF Mandate in 2035 - this is almost double what is modelled in this analysis. There have been a series of economic data updates, as well as revised financing assumptions. The undiscounted values need to be compared to the March 2025 consultation.

4.7 The total liability of the scheme can be managed by limiting the support to a pre-determined volume of non-HEFA SAF and agreeing the strike price within contracts. As mentioned previously, the Revenue Certainty Mechanism is intended to be time-limited to only provide interim support, which will further limit the liability.

Table 4: Difference Payments, by price path

Costs over 15 years (£ millions, 2030-2044)			Scenario 1	Scenario 2	Scenario 3
RCM difference payments	Price path: Very High	Discounted	£3,885.2	£3,885.2	N/A
		Undiscounted	£5,794.5	£5,794.5	N/A
	Price path: Central	Discounted	N/A	N/A	N/A
		Undiscounted	N/A	N/A	N/A
	Price path: Very Low	Discounted	£3,224.7	£3,224.7	N/A
		Undiscounted	£4,978.7	£4,978.7	N/A

Non-monetised costs

4.8 Two areas of costs that have not been monetised here include: other additional costs as a result of negotiating and agreeing a revenue certainty contract (e.g., administration and legal costs); and a potential cost, namely possible payment defaults by SAF producers in circumstances where the revenue certainty contracts require payment of funds to the counterparty by SAF producers. We will seek to monitor both of these through the design and implementation of the policy.

Benefits

As mentioned, the revenue from the difference payments will be a benefit to the plant or levied industry depending on the market price. This transfer is set out in Table 4 and is not repeated in this section below.

Lower financing costs

4.9 As set out in Section 2, the Revenue Certainty Mechanism is intended to mitigate the financial risks associated with the uncertain market price of non-HEFA SAF. This analysis translates this by assuming a lower cost of equity - meaning investors are willing to accept a lower return to reflect the reduced risk in the presence of the Revenue Certainty Mechanism - and the inclusion of debt financing.

4.10 Lower financing costs results in cheaper domestically produced non-HEFA SAF under the Revenue Certainty Mechanism. The overall benefit brought by the Revenue Certainty Mechanism depends on the price of non-HEFA SAF in the counterfactual scenario, where we assume the SAF Mandate is met through imports. We use the scenarios set out in Table 2 to test the variability that may arise from different counterfactual (imported non-HEFA SAF) prices.

4.11 In Scenario 1, due to the Revenue Certainty Mechanism, domestic non-HEFA SAF becomes cheaper than what the counterfactual price would have been. UK non-HEFA SAF plants benefit from the presence of the Revenue Certainty Mechanism and experience lower cost of equity and can access debt. The Revenue Certainty Mechanism therefore lowers the price of non-HEFA SAF and this results in substantial fuel cost savings for the UK aviation industry[47], as they substitute expensive non-HEFA SAF imports for cheaper domestic production. It is worth noting that, in this scenario, the potential fuel cost savings will not completely offset revenue certainty mechanism payments in a low-price path (where suppliers pay into the scheme but benefit from lower fuel costs).

4.12 In Scenario 2, due to the Revenue Certainty Mechanism, domestic non-HEFA SAF becomes equally priced to what the counterfactual price would be. In this scenario, the Revenue Certainty Mechanism, by lowering equity costs and allowing producers to access debt, brings the cost of domestic non-HEFA SAF down, making UK production more competitive internationally. We would expect to see no fuel cost savings, as the resulting price of non-HEFA SAF under the Revenue Certainty Mechanism is the same as the price that we'd expect to see in the counterfactual. In this scenario, the only potential impact on fuel suppliers and airlines are the transfer of revenue certainty mechanism payments and the admin costs.

4.13 In Scenario 3, domestic non-HEFA SAF remains more expensive than the counterfactual price, even after the introduction of the Revenue Certainty Mechanism. This scenario assumes that non-HEFA SAF is abundant and therefore global production is cheap. This means that the UK production and financing costs are not competitive internationally, despite the presence of the Revenue Certainty Mechanism, and that fuel cost savings would not be realised. In this scenario, the need for revenue certainty contracts is limited, because global production is cheap and cost-effective. If this scenario occurs, we illustrate the impacts of no revenue certainty contracts being signed: fuel cost savings are therefore not realised, and the aviation industry will continue buying imported non-HEFA SAF.

4.14 The magnitude of fuel cost savings changes across scenarios and across price paths. The central price path has the largest change in fuel costs as the high price paths are often capped at the buyout price, therefore reducing the size of the difference in fuel costs. Table 5 sets out the monetised benefit from the fuel cost savings changes, while Annex B provides detail on the prices assumed for this analysis.

Table 5: Monetised benefits from lower financing costs

Benefits over 15 years (£ millions, 2030-2044)			Scenario 1	Scenario 2	Scenario 3
Benefit from lower fuel costs	**Price path: Very High**	**Discounted**	£62.5	N/A	N/A
		Undiscounted	£77.6	N/A	N/A
	Price path: Central	**Discounted**	£3,704.3	N/A	N/A
		Undiscounted	£5,561.0	N/A	N/A

[47] The size of the savings is due to the reduction is the weighted average cost of capital that is brought down by the presence of debt with a Revenue Certainty Mechanism. Debt is cheaper than equity and therefore contributes to substantially reduce the domestic price of non-HEFA SAF.

	Price path: Very Low	**Discounted**	£3,030.9	N/A	N/A
		Undiscounted	£4,679.5	N/A	N/A

GVA impacts from higher productivity

4.15 Estimating impacts on economic growth is challenging and uncertain. The three scenarios capture the uncertainty around the number of jobs needed to produce a tonne of non-HEFA SAF and the uncertainty around the level to which these economic benefits will be additional. However, for Scenario 3, we do not assume any of these benefits are realised given no revenue certainty contracts are signed and therefore no UK domestic production occurs. This analysis assumes that GVA benefits are the same across the different price paths (Very High, Central, Very Low).

Table 6: Monetised GVA benefits from higher productivity

Benefits over 15 years (£ millions, 2030-2044)		**Scenario 1**	**Scenario 2**	**Scenario 3**
GVA benefits from higher productivity	**Discounted**	£135.7	£95.4	N/A
	Undiscounted	£204.7	£143.9	N/A

Non-monetised benefits

4.16 There are three key sources of non-monetised benefits:

- Energy security. The Revenue Certainty Mechanism will support domestic non-HEFA SAF production ensuring the UK is less reliant on imported SAF fuels in order to meet with the SAF Mandate targets.
- R&D spillovers. Benefits received by the SAF industry from the research and development (R&D) investments of those plants who entered revenue certainty contracts and therefore face lower price risks.
- GHG emissions reductions from replacing kerosene with use of SAF. Although supporting an increased domestic SAF production contributes to reducing GHG emissions, the relevant GHG savings have already been accounted for under the SAF Mandate Cost-Benefit Analysis. This benefit is therefore not monetised in this Revenue Certainty Mechanism appraisal.

Overall results

4.17 Tables 7, 8 and 9 summarises the discounted monetised costs, benefits, transfers and Net Present Value (NPV) across our core three scenarios, for the difference non-HEFA price paths (Very High, Central, Very Low).

Table 7: RCM Costs, Benefits, Transfers and NPV if non-HEFA SAF price path is Very High

Total costs and benefits (£ millions, 2030-2044)	**Scenario 1**	**Scenario 2**	**Scenario 3**
RCM difference payments	-£3,885.2	-£3,885.2	N/A

(cost)			
RCM difference payments (benefit)	£3,885.2	£3,885.2	N/A
Admin costs	-£17.1	-£17.1	-£7.2
Benefit from lower financing costs	£62.5	N/A	N/A
GVA benefits from higher productivity	£135.7	£95.4	N/A
Net Present Value	£181.1	£78.3	-£7.2

Table 8: RCM Costs, Benefits, Transfers and NPV if non-HEFA SAF price path is Central

Total costs and benefits (£ millions, 2030-2044	Scenario 1	Scenario 2	Scenario 3
RCM difference payments (cost)	N/A	N/A	N/A
RCM difference payments (benefit)	N/A	N/A	N/A
Admin costs	-£17.1	-£17.1	-£7.2
Benefit from lower financing costs	£3,704.3	N/A	N/A
GVA benefits from higher productivity	£135.7	£95.4	N/A
Net Present Value	£3,822.9	£78.3	-£7.2

Table 9: RCM Costs, Benefits, Transfers and NPV if non-HEFA SAF price path is Very Low

Total costs and benefits (£ millions, 2030-2044	Scenario 1	Scenario 2	Scenario 3
RCM difference payments (cost)	-£3,224.7	-£3,224.7	N/A
RCM difference payments (benefit)	£3,224.7	£3,224.7	N/A
Admin costs	-£17.1	-£17.1	-£7.2
Benefit from lower financing costs	£3,030.9	N/A	N/A
GVA benefits from higher productivity	£135.7	£95.4	N/A
Net Present Value	£3,149.5	£78.3	-£7.2

4.18 The results show that under Scenarios 1 and 2 with high benefits from lower financing costs and economic benefits, the policy shows a relatively high NPV. In Scenario 3, where there no contracts signed, only limited set-up costs occur, the NPV is slightly negative. This highlights the sensitivity of the analysis to the assumption on how fuels prices in the UK will compare to the counterfactual price following the introduction of the Revenue Certainty Mechanism.

Impacts on costs per passenger

4.19 We expect that most of the administrative costs and levy payments will be passed through the supply chain in the form of increased ticket prices. Similarly, the Revenue Certainty Mechanism could lower the cost of domestically produced non-HEFA SAF by lowering financing costs: this is likely to create a savings in fuel costs for fuel suppliers and airlines. We expect that most fuel cost savings will be passed through the supply chain to bring ticket prices down. This analysis assumes that fuel suppliers will pass these costs and savings onto airlines and that airlines will pass costs and savings onto customers. These are not an additional costs or benefits, rather they reflect how these may be passed on.

4.20 There is significant variation in the potential for airlines to pass costs on to customers. The literature suggests a wide range of passthrough rates: research by the ICF et al.[48] estimates average passthrough rates of around 74% for intra-EEA flights, and 77% for other routes. Research into the impact of carbon pricing on aviation by Frontier Economics[49] claims that 65-80% of airline operating costs tend to be passed onto passengers. This modelling, therefore, assumes a 75% pass through rate of these costs and savings from airlines onto consumers. We assume for simplicity that all costs faced by fuel suppliers are fully passed on to airlines.

4.21 To quantify the impact on costs per passenger[50], this analysis considers the potential difference in payments due to the levy (calculated as the difference between the agreed strike price and the estimated market price), the administrative costs and the savings in fuel costs due to the impact of the Revenue Certainty Mechanism on SAF prices. The total is then divided for the expected number of passenger after applying the pass-through rate.

Change in costs = difference payments + savings in fuel costs + admin costs

4.22 Table 10 shows the impact of the Revenue Certainty Mechanism on cost per passenger, assuming the Revenue Certainty Mechanism covers 300,000 tonnes per year of non-HEFA SAF. We present the costs per passenger for the three illustrative scenarios considered in this costs-benefit analysis and for the different the price paths estimated in this analysis (Very High, Central, Very Low). This analysis does not consider changes to fuel costs due the ETS or CORSIA schemes.

4.23 Overall, the Revenue Certainty Mechanism, when covering a limited but reasonable amount of non-HEFA SAF volumes, is likely to result in a small impact on ticket prices. Depending on non-HEFA SAF prices and whether the levy costs are offset by fuel cost savings, the likely impact on ticket prices is between -£1.5 and £1.5, on average, per year. This is less than the average annual variation in ticket prices[51].

[48] ICF(2020), Assessment of ICAO's global market-based measure (CORSIA) pursuant to Article 28b and for studying cost passthrough pursuant to Article 3d of the EU ETS Directive.
[49] Frontier Economics, AIR Transportation Analytics (2022) Economic research on the impacts of carbon pricing on the UK aviation sector. Available here.
[50] This is a proxy of what the impact on ticket prices could be.
[51] ONS (2023), available here.

Table 10: Average annual ticket price impact due to the RCM

Average cost per passenger (£) per year between 2030 and 2044	Scenario 1	Scenario 2	Scenario 3
Very High Price	-£1.5	-£1.5	£0
Central Price	-£1.4	£0	£0
Very Low Price	£0.1	£1.2	£0

5. Caveats, uncertainty and sensitivity testing

Caveats and Uncertainties

5.1 There is considerable uncertainty around the future mix of SAF fuels, production costs and prices both domestically and internationally over the period 2025 to 2050. By estimating very high and very low non-HEFA SAF prices and presenting different scenarios, this analysis captures a wide range of uncertainties and shows how the Revenue Certainty Mechanism would function under different non-HEFA SAF price trajectories and different economic responses to the scheme. The non-HEFA SAF prices assumed in this analysis might not reflect the long-term market price of non-HEFA SAF and they have been assumed based on the fact that the Revenue Certainty Mechanism aims to support first-of-a-kind production, while SAF market prices are uncertain, to help scale early technologies. Beyond this, feedstock prices and production costs depend on many factors, including uncertainty linked to global conflict and the increased demand for SAF from other countries as they also decarbonise.

5.2 Additionally, given there is limited evidence around production costs, this modelling assumes that production costs are the same for domestic and international production and only finance costs have been varied across scenarios: this is a mechanical way to reflect potential price differences in the model, rather than an attempt to estimate global non-HEFA SAF prices. We also do not model any change in SAF prices over time or any future alignment of domestic and global prices due to increased international competition and arbitrage that may result from the RCM. Finally, this analysis also assumes that there are enough SAF imports to meet the mandate in the counterfactual and policy scenario: this is a simplification and there is high uncertainty around refinery data globally and whether they will scale up to full production. The sensitivity analysis section explores a scenario where there is not enough global SAF production and the SAF Mandate obligation is bought out.

5.3 The model assumes that plants under the Revenue Certainty Mechanism will attract both equity and debt. Engagement with stakeholders helped inform DfT of the appetite and the impact the Revenue Certainty Mechanism scheme could have on the financing of a first-of-a-kind UK SAF production project. However, in reality, plants might not secure debt funding initially given the early stage of the industry. The 100% equity scenario below explores the potential impacts if this occurs (see sensitivity analysis section). Additionally, the cost of equity and debt depends on construction, operational and technology risks as well as the current and future economic conditions. The nature of these is likely to change in the future.

5.4 There is also significant uncertainty on the final design of the scheme, the time it will run for and the volumes of non-HEFA SAF covered. This analysis models an illustrative scenario, with a limited but reasonable amount of non-HEFA SAF covered under the Revenue Certainty Mechanism with the aim of supporting the industry to kickstart production. The central price from this modelling is an approximation with high uncertainty and would not reflect the actual strike price that are to be negotiated upon within individual contracts.

5.5 The total liability of the scheme can be managed by limiting the support to a pre-determined volume of non-HEFA SAF and agreeing the strike price within contracts. The revenue certainty mechanism is intended to be time-limited to only provide interim support, help establish first-of-a-kind plants in the UK and deliver the UK SAF Mandate targets. We will continuously monitor the impacts of the scheme to ensure that these are not disproportionate.

5.6 As already highlighted, SAF remains a nascent industry with many production processes and technologies yet to reach commercial scale. We are continuously working to improve our methodology and input data as they become available, and we will update this analysis when new evidence is published.

Sensitivity Tests

5.7 One of the key conclusions arising from the results in Section 4 is the responsiveness of our findings to changes in finance costs and to the counterfactual. We conducted further sensitivity analysis on these two aspects of the analysis to show how results can change.

5.8 All scenarios assume that, with the introduction of the Revenue Certainty Mechanism, domestic non-HEFA SAF plants are able to access debt. Introducing debt significantly lowers the weighted average costs of capital for SAF plants compared to a 100% equity[52] financing profile: while our stakeholder engagement confirmed that non-HEFA SAF projects are likely to be able to access debt in the presence of a Revenue Certainty Mechanism, there is uncertainty about whether this will happen in practice.

5.9 We have illustrated this uncertainty through this sensitivity test for Scenario 1, where the counterfactual price of non-HEFA SAF is high and the Revenue Certainty Mechanism only partially reduces the price of non-HEFA SAF. This is because we assume a reduction in the cost of equity due to lower price volatility, but banks still perceive SAF investments to be risky and are not willing

[52] From a counterfactual value of 19.1%, the weighted average cost of capital falls to 11.2% in Scenario 1, when assuming a gearing level of 60%.

to lend. Therefore, there is no debt in this scenario (domestic non-HEFA SAF is financed at 100% equity).

5.10 This sensitivity test assumes that the cost of equity falls for domestic production under the RCM to 15.8%[53] from a counterfactual value of 19.1%[54]. Therefore, this scenario shows that, after introducing the Revenue Certainty Mechanism, fuel costs reduce, but to a smaller extent than in Scenario 1. The results of this scenario are presented in Table 11 below. The NPV uses the GVA and administrative costs from Scenario 1.

Table 11: Sensitivity analysis for Scenario 1. Cost, benefits and NPV for 100% equity scenario across Very Low, Central and Very High price paths in the presence of a Revenue Certainty Mechanism.

Total costs and benefits (£ millions, 2030-2044	Very Low price path	Central price path	Very High price path
RCM difference payments (cost)	-£3,595.7	N/A	-£2,674.3
RCM difference payments (benefit)	£3,595.7	N/A	£2,674.3
Admin costs	-£17.1	-£17.1	-£17.1
Benefit from lower financing costs	£2,128.6	£2,431.0	£0
GVA benefits from higher productivity	£135.7	£135.7	£135.7
Net Present Value	£2,247.2	£2,549.6	£118.6

5.11 As mentioned previously, this Revenue Certainty Mechanism CBA has not considered import availability to meet the SAF Mandate. However, we are aware of stakeholder concerns about import availability. For example, increased competition globally for non-HEFA SAF may mean that there are fewer imports for the UK. We therefore test as a sensitivity what would occur if there were less imports in the counterfactual than anticipated, which in turn would result in SAF Mandate buyouts. This sensitivity specifically tests what implications that has on the analysis undertaken in this CBA.

5.12 As a crude approximation, we assume there is a non-HEFA shortfall in the counterfactual of 300,000 tonnes[55], and test this different counterfactual against the presence of a Revenue Certainty Mechanism. To model the impact of the Revenue Certainty Mechanism, we use the same assumptions on production costs and financing costs as in Scenarios 1, 2, and 3, as per the main analysis. This designed sensitivity shows how the Revenue Certainty Mechanism can

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[53] The value 15.8% is the mid-point of the range from the PwC analysis of the SAF sector for DfT. Their analysis followed a CAPM approach as described in Section 3 and is working with a 100% equity financing assumption. In Scenario 1, from a counterfactual value of 19.1%, the weighted average cost of capital falls to 11.2% (60% gearing). In this sensitivity, from a counterfactual value of 19.1%, the weighted average cost of capital falls to 15.8% (100% equity).

[54] See Table 1.

[55] In this sensitivity test, we assume that the SAF Mandate obligation is bought out by at least 300,000 tonnes of non-HEFA SAF each year. The counterfactual non-HEFA SAF price equals the buyout price plus the cost of jet fuel. This analysis does not consider changes to fuel costs due the ETS or CORSIA schemes.

reduce possible buy-out costs imposed by the SAF Mandate in this scenario where global non-HEFA SAF production is not enough.

5.13 Table 12 shows the NPV for this sensitivity test for Scenario 1. For a scenario with the Revenue Certainty Mechanism that has a counterfactual with some level of buy-out, the global supply of non-HEFA SAF is more likely to be limited. For this reason, the Very High or Central price paths are more likely than the Very Low price path. This is why results are shown for these two price paths only.

Table 12: Sensitivity analysis for Scenarios 1. Counterfactual price always assumes the SAF Mandate obligation is bought out in the absence of the Revenue Certainty Mechanism across Central and Very High price paths.

Total costs and benefits (£ millions, 2030-2044)	Central price path	Very High price path
RCM difference payments (cost)	N/A	-£3,885.2
RCM difference payments (benefit)	N/A	£3,885.2
Admin costs	-£17.1	-£17.1
Benefit from SAF availability	£3,947.6	£62.5
GVA benefits from higher productivity	£135.7	£135.7
Net Present Value	£4,066.2	£181.1

6. Annex A: Aviation demand forecast

6.1 Our analysis uses updated aviation demand forecasts from the Department's aviation model. The model forecasts air passenger demand for UK-departing flights and allocates this across the UK's airports based on several factors, including a passenger's final destination, location of and accessibility to airports, availability of flights, travel times, cost and the capacity of airports to accommodate projections of passengers and flights to 2050 and beyond.

6.2 Fuel demand forecasts are produced by combining these outputs with assumptions about the future fuel efficiency of aircraft in the fleet and future operational and air traffic management efficiency improvements. More detail on the aviation model can be found in the DfT Aviation Modelling Suite[56] document that was published in 2024.

6.3 The demand forecasts used in the analysis assume a scenario that is designed to reflect a continuation of current policy and industry trends. Table 13 below shows the assumptions used for this scenario. Fuel demand has been used in the analysis to determine the SAF volume required under the SAF mandate. Passenger figures have been used to calculate the per passenger impact of the Revenue Certainty Mechanism.

6.4 All the figures used in this analysis are available in the dataset accompanying this publication.

Table 13: Assumptions used for aviation demand modelling

Model input	Assumption
UK GDP and Consumption Expenditure Growth Rates	ONS, OBR, and DfT TAG databook[57]
Foreign GDP Growth Rates	Weighted average GDP growth rates based on IMF (2023) and OECD (2021) World Economic Outlook forecasts

[56] More information available here.
[57] ONS GDP time series and OBR economic and fiscal outlook for historical data.
For short term GDP forecast (until 2028): OBR economic and fiscal outlook November 2023
For long term GDP forecast (from 2029): OBR Long term economic determinant July 2022. All are central scenarios.

Oil Prices	Central DESNZ fossil fuel price assumptions, 2023.[58]
SAF prices	Weighted average SAF price based on AIA cost data and DfT modelling from SAF Mandate Cost Benefit Analysis[59]
Carbon prices	ETS prices: "Market carbon values" series published in DESNZ 'Traded carbon values for modelling purposes, 2024)[60] CORSIA prices: Low series published in DfT TAG data book May 2025 update[61]
Fuel efficiency improvements	Central Efficiency 1.5% pa (2017-2050) based on 'like, nominal' case from ATA research[62]
SAF uptake	As per SAF Mandate legislation. 10% in 2030 22% in 2040 22% in 2050
Zero emission technology uptake	None

[58] More information available here. See the aviation modelling framework for more details on how oil prices are converted to Kerosene prices.
[59] For more information on the SAF Mandate CBA please see here.
[60] More information available here.
[61]More information available here.
[62]More information available here.

7. Annex B: Estimated price paths

7.1 Table 14 below shows the final price paths across the difference scenarios for counterfactual and Revenue Certainty Mechanism model runs. This analysis uses BtL prices as a proxy for non-HEFA SAF. These prices are assumed to be flat over the course of the 15-year contract and are only uplifted by inflation.

7.2 The difference between the Revenue Certainty Mechanism domestic fuel prices in the different price paths (Central versus Very High and Very Low) informs the Revenue Certainty Mechanism difference payments estimate.

7.3 The difference between the BAU counterfactual price for imports and the Revenue Certainty Mechanism domestic price in each scenario (Scenario 1, Scenario 2, Scenario 3) informs the fuel cost savings.

7.4 As the three scenarios seek to capture uncertainty around what we assume the counterfactual price to be (set by the price of imported non-HEFA SAF), this analysis shows a diverse set of options for what level the future non-HEFA SAF prices will be outside the UK. As DfT do not own information on future non-HEFA SAF prices abroad, we adjust the financing costs and profile of imports, as a mechanical way to consider the differing price effects of the counterfactual. Specifically, in Scenario 1, we assume a high counterfactual price, where imports are financed with 100% equity. In Scenario 2, we assume a medium counterfactual price, with imports financed with equity and debt (40% equity, 60% debt). In Scenario 3, we assume a low counterfactual price, reflecting in the model with lower cost of equity than Scenario 2.

7.5 In Scenario 1, we assume imports' cost of equity is 19.1% (the rate assumed in our counterfactual for domestic non-HEFA SAF without the Revenue Certainty Mechanism). In Scenario 2, we assume imports' cost of equity is 17.6% and cost of debt is 7.0% (the rates assumed in our policy case for domestic non-HEFA SAF). In Scenario 3, we assume a lower cost of equity - we use a proxy taken from BEIS' NOAK CCUS estimate[63] (2018, see here) of 15.5% - and cost of debt is 7.0%. This is not an attempt to estimate future global prices for non-HEFA SAF, and these numbers are not to be considered a prediction of future

[63] BEIS (2020), Cost of capital update for electricity generation, storage and demand side response technologies.

import cost of equity/debt, but a mechanical way to show possible uncertainty around counterfactual prices.

Table 14: Estimated average (2030 to 2044) non-HEFA SAF prices in 2024 prices, domestic and imports

£/tonne		Scenario 1	Scenario 2	Scenario 3
Very High	**BAU counterfactual import price**	5,100	5,100	4,900
	RCM domestic fuel price	5,100	5,100	5,100
Central	**BAU counterfactual import price**	5,100	3,800	3,400
	RCM domestic fuel price	3,800	3,800	3,800
Very Low	**BAU counterfactual import price**	3,800	2,700	2,500
	RCM domestic fuel price	2,700	2,700	2,700