

# SAF REPORT

UNISERVE LIMITED

2024

AIR FRANCE KLM MARTINAIR

CARGO SAF PROGRAMME

## CARBON SAVINGS GENERATED BY AIR FRANCE KLM MARTINAIR CARGO SAF PROGRAMME

In 2024, your company made a financial contribution to the Sustainable Aviation Fuel (SAF) Programme managed by Air France KLM Martinair Cargo. This support enabled the procurement of a volume of SAF, resulting in a 85.56% reduction in carbon emissions across the product lifecycle compared to conventional fossil kerosene.

Thanks to your participation, the carbon footprint of your operations has been measurably reduced by the metric tonnes (mT) of carbon dioxide<sup>1</sup> (CO<sub>2</sub>) outlined in the table below, specifically within Scope 3, Categories 4 or 9 emissions. These reductions are further detailed in the SAF purchases and associated CO<sub>2</sub> savings report for 2024, available in Appendix IV. To ensure the reliability of these figures, an independent third party has validated the data, with the verification statement provided in Appendix III.

The CO<sub>2</sub> footprint for participants in the SAF Programme is calculated using a specialised CO<sub>2</sub> calculator. This tool assesses emissions for each route based on factors such as fuel consumption, load factor and a Well-to-Wake<sup>2</sup> (WtW) CO<sub>2</sub> conversion factor of 3.916, in alignment with ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) standards.

Air France KLM Martinair Cargo extends its sincere appreciation for your commitment and support. Your contribution is essential to advancing our shared goal of reducing aviation's carbon footprint and creating a more sustainable future for the industry.

CO <sub>2</sub> emissions of air freight with Air France KLM Martinair Cargo in 2024	
Total fuel consumption (fossil and non-fossil) <sup>3</sup>	17.33 mT
WtW CO <sub>2</sub> Emissions	67.86 mT

CO <sub>2</sub> savings from the Air France KLM Martinair Cargo SAF Programme in 2024	
12.50 mT PURCHASED SAF	SAF delivered produced from renewable feedstock <sup>4</sup> in 2024 provided a CO <sub>2</sub> emission reduction of 85.56%, as compared to traditional fossil kerosene <sup>5</sup> .
41.88 mT WtW CO <sub>2</sub> savings	Calculation of the WtW CO <sub>2</sub> savings = 12.50 (mT) x 3.916 (mT CO <sub>2</sub> /mT fuel) x 85.56% = 41.88 (mT CO <sub>2</sub> ).

See appendix IV for more information on the used methodology

<sup>1</sup> This report covers CO<sub>2</sub> emissions only. Accurate methodology and tools to measure non-CO<sub>2</sub> emissions are being developed.  
<sup>2</sup> "CO<sub>2</sub> reduction with SAF" is based on a comparison between the CO<sub>2</sub> emissions from fossil fuel and SAF on the total lifecycle of fuels. Well-to-Wake (WtW) = production, transportation and combustion.  
<sup>3</sup> Total fuel consumption for the period is determined based on actual flown data based on the extraction from the system and therefore might be subject to limited corrections compared to scheduled flown data.  
<sup>4</sup> The SAF used in this programme is sourced from renewable feedstocks (indicated on page 3).  
<sup>5</sup> The calculation assumes that SAF has the same net heat of combustion as traditional fossil kerosene.



The Air France KLM Martinair Cargo SAF Programme assures corporate participants that all SAF uplifted adheres to the highest sustainability standards. Air France-KLM upholds stringent sustainability criteria to ensure SAF meets or exceeds industry benchmarks. To reinforce this commitment, Air France-KLM cooperates with reputable external organisations, including specialised non-governmental organisations (NGOs), to advise on and certify SAF sustainability.

Key certifications for SAF include those from the International Sustainability and Carbon Certification (ISCC) and the Roundtable on Sustainable Biomaterials (RSB). SAF procured by Air France-KLM is certified under frameworks such as ISCC EU, ISCC+, or RSB, with all feedstocks complying with the EU's Renewable Energy Directive II (EU) 2018/2007, Annex IX.

In addition to meeting these certification standards, Air France-KLM has implemented supplementary criteria to enhance SAF sustainability:

- **CO<sub>2</sub> Reduction:** SAF must achieve at least a 65% reduction in lifecycle CO<sub>2</sub> emissions (Well-to-Wake) compared to conventional kerosene (based on EU Regulation).
- **Food Production:** SAF feedstocks must not compete with food or animal feed production.
- **Palm Oil Exclusion:** SAF derived from palm oil, palm oil derivatives or oil palm residues is prohibited.
- **Technology Standards:** SAF produced using Hydroprocessed Esters and Fatty Acids (HEFA) technology is accepted, provided it complies with certification and sustainability standards.

Air France-KLM procures SAF through two primary channels:

- **Direct Purchase:** Pre-blended SAF is acquired directly from suppliers and is ready for immediate aircraft fuelling.
- **Blending Process:** Non-blended SAF is purchased, blended with conventional kerosene by KLM, and then introduced to the airport fuel system for aircraft use.

The SAF used in this programme is sourced from the following renewable feedstocks:

- **Used Cooking Oil (UCO):** Waste oil from food processing, also known as yellow grease.
- **Animal Fats (Categories I and II):** By-products unsuitable for human or animal consumption due to disease risk, ideal for SAF production.

By adhering to these standards, Air France-KLM ensures that SAF procurement is both sustainable and aligned with the latest industry requirements, reinforcing its commitment to a more sustainable future for the airline industry.

## APPENDIX II: LIFE CYCLE ANALYSIS OF THE SAF



### LIFE CYCLE ASSESSMENT METHODOLOGY

The Life Cycle Assessment (LCA) methodology for emissions and emission reductions relies on Life Cycle Emission values to comprehensively evaluate the environmental impact of jet fuel production and use.

In the context of jet fuel, the LCA covers both upstream and downstream emissions. Upstream, or Well-to-Tank (WtT) emissions, include all emissions generated from the production and transportation of feedstock as well as the fuel itself before combustion. Downstream emissions, known as Tank-to-Wake (TtW) emissions, refer to those produced during fuel combustion. The aggregate of these two stages – upstream and downstream – is termed Well-to-Wake (WtW) emissions.

As established by the ICAO CORSIA framework, the baseline emission value for conventional fossil jet fuel is 89 g CO<sub>2</sub>/MJ.

The life cycle emissions of SAF and the resultant greenhouse gas (GHG) reductions in comparison to fossil jet fuel are influenced by various factors, including the type of feedstock employed. These factors play a critical role in determining SAF's environmental benefits over conventional fuels.

This appendix outlines the LCA methodology applied to the SAF used in the 2024 Air France KLM Martinair Cargo SAF Programme. All SAF delivered was certified by the RSB or the ISCC. These certifications provided a basis for calculating the carbon intensity of the SAF. Since SAF was sourced from multiple locations and suppliers, a standardised fossil fuel baseline of 89 g CO<sub>2</sub>/MJ (equivalent to 3.916 kg CO<sub>2</sub> per kg of fuel) was used for comparative purposes. All SAF in this programme was derived exclusively from waste oils, with no first-generation or palm-related oils included.

SAF was transported to airports via trucks or barges and stored in shared airport fuel facilities. A mass balance approach was employed to manage SAF allocations and accurately assign the fuel to Air France and KLM aircraft, ensuring that double counting of SAF usage was prevented.

At Schiphol (AMS), SAF is transported from the KLM SAF tank to the airport's fuel system by the third-party service provider AFS BV (Aircraft Fuel Supply). During this final stage of the transportation process, AFS determines the final volumes and sustainability characteristics of the SAF. AFS is RSB certified, ensuring that the final SAF product is also RSB certified. The relevant certification numbers are included in this report.

<sup>5</sup>International Civil Aviation Organization (ICAO). (2019). CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels. Retrieved from ICAO website.  
<sup>6</sup>International Civil Aviation Organization (ICAO). (2021). CORSIA Default Emission Values for Fossil Jet Fuel. Retrieved from ICAO website.

## APPENDIX II: LIFE CYCLE ANALYSIS OF THE SAF

### OVERALL GHG SAVING

The overall weighted CO<sub>2</sub> savings for the SAF supplied to Air France and KLM under the 2024 SAF Programme represent the weighted average of all SAF provided to these airlines. For 2024, the total weighted average of CO<sub>2</sub> savings is 85.56%.

Airport	Year	Supplier	Carbon Intensity (mT CO <sub>2</sub> /mT)	Fossil Baseline (mT CO <sub>2</sub> /mT)	GHG Saving %	Volume SAF (mT)	Total WtW GHG Savings (mT CO <sub>2</sub> )
ARN	2023	Air BP Sweden	0.247	3.916	93.70%	26.84	98.49
LHR	2023	BP OIL international	0.233	3.916	94.04%	278.80	1,026.75
LAX	2024	Neste	0.990	3.916	74.72%	238.40	697.56
Total			0.566	3.916	85.56%	544.04	1,822.80

Supplier Name	Certification	Certificate ID
BP Oil International	ISCC	EU-ISCC-Cert-DE105-81592740
Neste	ISCC	ISCC-CORSIA-Cert-DE100-06675124
Air BP Sweden	ISCC	EU-ISCC-Cert-DE105-84293908

For the conversion from CO<sub>2</sub>/MJ to kg CO<sub>2</sub>/kg, an energy density of 44 MJ/kg has been used. The fossil baseline used is 89 g CO<sub>2</sub>/MJ, which equates to 3.916 kg CO<sub>2</sub>/kg, as per the ICAO baseline.

## APPENDIX III: ASSURANCE REPORT OF THE INDEPENDENT AUDITOR

### Assurance report of the independent auditor

To: The management of Koninklijke Luchtvaart Maatschappij N.V.

#### Our conclusion

We have examined the special purpose financial information in connection with the Air France KLM Martinair Cargo SAF program for the period 1 January 2024 to 31 December 2024 as included in Appendix IV of the SAF report (hereafter: 'Statement') of Koninklijke Luchtvaart Maatschappij N.V. (the 'Company') based in Amstelveen.

Based on the procedures performed and evidence obtained nothing has come to our attention that causes us to believe that the Statement is not, in all material respects, in accordance with the accounting policies selected and disclosed by the Company, as set out in the Basis of preparation to the Statement.

#### Basis for our conclusion

We performed our examination in accordance with Dutch law, including Dutch Standard 3000A 'Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten) (assurance engagements other than audits or reviews of historical financial information (attestation engagements)). This engagement is aimed to obtain limited assurance. Our responsibilities in this regard are further described in the 'Our responsibilities for the examination of 'Statement' section of our report.

We are independent of Koninklijke Luchtvaart Maatschappij N.V. in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence). Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

We believe the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

#### Applicable Criteria

The Statement needs to be read and understood together with the reporting criteria. Koninklijke Luchtvaart Maatschappij N.V. is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the Statement are in accordance with the accounting policies selected and disclosed by the Company, as set out in the Basis of preparation to the Statement.

## APPENDIX III: ASSURANCE REPORT OF THE INDEPENDENT AUDITOR

### Restriction on use and distribution

The Statement is intended solely for the participants of the Air France KLM Cargo SAF Program and is prepared to assist Koninklijke Luchtvaart Maatschappij N.V. to comply with certain requirements of the contract with the participants. As a result, the Statement may not be suitable for another purpose. Therefore, our report is intended solely for Koninklijke Luchtvaart Maatschappij N.V. and the participants of the Air France KLM Cargo SAF Program and should not be distributed to other parties and used for other purposes.

### Responsibilities of management for the Statement

Management is responsible for the preparation of the Statement is in accordance with the applicable criteria. Furthermore, management is responsible for such internal control as it determines is necessary to enable the preparation of the Statement is free from material misstatement, whether due to fraud or error.

### Our responsibilities for the examination of Statement

Our responsibility is to plan and perform our examination in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

The procedures performed in this context differ in nature and timing and are less extent as compared to reasonable assurance engagements. The level of assurance obtained in a limited assurance engagement is therefore substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

We apply the 'Nadere Voorschriften Kwaliteitssystemen' (NVKS, Regulations for Quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our examination included among others:

- Obtaining an understanding of the entity and its environment and the applicable financial reporting framework, in order to identify areas in Statement where material misstatements are likely to arise due to fraud or error, designing and performing procedures to address those areas, and obtaining assurance evidence that is sufficient and appropriate to provide a basis for our conclusion.
- Obtaining an understanding of the entity's accounting systems and accounting records and consider whether these generate data that is adequate for the purpose of performing the analytical procedures.
- Identifying areas of the Statement where a material misstatement, whether due to fraud or error, are most likely to occur, designing and performing assurance procedures responsive to these areas, and obtaining assurance information that is sufficient and appropriate to provide a basis for our conclusion.
- Considering the internal control relevant to the examination in order to select assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of the company's internal control.
- Making inquiries of management and others within the entity'.
- Determining the plausibility of the information included in Statement.

## APPENDIX III: ASSURANCE REPORT OF THE INDEPENDENT AUDITOR

- Obtaining assurance evidence that Statement agrees with, or reconciles, the entity's underlying accounting records.
- Evaluating the assurance evidence obtained.
- Considering the appropriateness of accounting policies used and considering whether the accounting estimates and related disclosures made by management appear reasonable.
- Considering the overall presentation, structure and content of the financial statements, including the disclosures.
- Considering whether Statement has been prepared in accordance with the applicable financial reporting framework and represents the underlying transactions free from material misstatement.

Amstelveen, 31 January 2025

KPMG Accountants N.V.

G.D. Diamandas RA

## APPENDIX IV: CALCULATION CARBON EMISSION REDUCTION

Statement of SAF purchases and associated CO<sub>2</sub> savings for the period 1 January 2024 to 31 December 2024 for the Air France KLM Martinair Cargo SAF Programme.

### PURPOSE

This statement of SAF purchases and associated CO<sub>2</sub> savings for the period 1 January 2024 to 31 December 2024 for the Air France KLM Martinair Cargo SAF Programme, hereafter "the Statement" is prepared to provide the contributors of the SAF Programme with information regarding the volume of biofuel purchased and the CO<sub>2</sub> savings achieved over the aforementioned period. The Statement is prepared using the basis of preparation described below.

**Key figures for the Air France KLM Martinair Cargo SAF Programme for the period 1 January 2024 to 31 December 2024**

Volume of SAF Purchases (mT)	544.04
WtW CO <sub>2</sub> Savings (mT)	1,822.80

### BASIS OF PREPARATION

#### Volume of SAF

The volume of purchased blended SAF and non-blended SAF is expressed in metric tonnes. The volume of SAF sourced is in accordance with the invoices allocated to the 2024 programme for fuel delivered.

Conversion:

- 1 metric tonne = 330.22 gallons
- Standard Density: 1 litre = 0.8 kg

#### CO<sub>2</sub> Savings of SAF

CO<sub>2</sub> savings are calculated using the following formula:

- **Formula:** CO<sub>2</sub> Savings = Mass of SAF Used x CO<sub>2</sub> Savings Factor (85.56%) x 3.916

Whereas:

**Mass of SAF Used:** measured in metric tonnes

**CO<sub>2</sub> Savings Factor:**

- **Calculation:** Derived by comparing the Carbon Intensity (CI) of SAF with the ICAO fossil fuel baseline using a full Life Cycle Analysis (Well-to-Wake)
- **Formula:** CO<sub>2</sub> Savings Factor = 1-(Carbon Intensity of SAF)/(Fossil Baseline)

**ICAO Fossil Baseline:**

- **CI of Fossil Fuel:** 89 g CO<sub>2</sub> per MJ
- **Net Heat of Combustion:** 44 MJ/kg
- **Baseline CO<sub>2</sub> Factor:** 3.916 kg CO<sub>2</sub> per kg fuel = (Fossil Baseline x Net Heat of Combustion)/1000

