

Statement on UK SAF Mandate – PtL Eligibility of NovaSAF1

To whom it may concern,

Peterson Solutions can confirm that we have conducted an assessment of Syzygy Plasmonics' planned NovaSAF1 facility in Uruguay, focusing on its eligibility under the UK Sustainable Aviation Fuel (SAF) Mandate, including the requirements applicable to Power-to-Liquid (PtL) SAF under the UK Renewable Transport Fuel Obligations (RTFO) framework.

The assessment covered the production pathway design, sustainability framework, traceability and chain of custody approach, mass balance methodology, conversion factors, and greenhouse gas (GHG) emission calculations, based on the UK SAF Mandate Technical Guidance.

Based on the design data and documentation reviewed, we conclude the following:

Eligibility:

The NovaSAF1 project design, using manure-based biogas as a biogenic carbon source and renewable electricity as a core energy input, is in principle eligible under the UK SAF Mandate. The pathway qualifies as a hybrid SAF pathway, producing both:

- a waste-derived bio-SAF share, and
- a Power-to-Liquid (PtL) SAF energy share, attributable to the use of renewable electricity in fuel synthesis.

This classification is consistent with the UK SAF Mandate's recognition of synthetic aviation fuels, renewable electricity inputs, and energy-based attribution using mass balance.

Mass Balance & Energy Attribution:

A mass balance system has been established consistent with UK RTFO principles, allowing renewable fuel characteristics to be assigned through accounting rather than physical segregation. Conversion factors and energy attribution methodologies have been applied to distinguish the PtL energy share from the biogenic SAF share. Based on the latest design-stage calculations, the final SAF output can be classified as up to 59% PtL SAF and 41% waste-derived bio-SAF, subject to confirmation with operational data.

GHG Emissions:

Lifecycle GHG emissions have been calculated using a methodology aligned with UK

RTFO and SAF Mandate requirements. While actual production data are not yet available, the design-based GHG calculations demonstrate compliance with UK SAF Mandate minimum savings thresholds relative to fossil jet fuel and significantly exceed these requirements. The calculated lifecycle emissions of the final SAF are approximately 9 gCO₂eq/MJ, corresponding to around 90% GHG savings compared to the fossil comparator.

Renewable Electricity Evidence:

Syzygy has assembled evidence demonstrating that the electricity used in the NovaSAF1 process qualifies as renewable electricity under UK SAF Mandate criteria and is used as a relevant, non-auxiliary energy input that directly contributes to the energy content of the final fuel, thereby supporting PtL SAF eligibility.

Internal Review:

An internal review of the management system, sustainability procedures, and calculation methodologies has been conducted, confirming that the systems required to support UK SAF Mandate compliance are in place.

Limitations:

This statement is based on design-phase data and planning-stage documentation. Formal recognition under the UK SAF Mandate will require verification of actual operational data, final electricity sourcing evidence, and audited records once the facility is commissioned and producing SAF.

Conclusion:

Subject to the successful verification of actual operating data at start-up, the NovaSAF1 facility is well positioned to qualify under the UK SAF Mandate, including recognition of the electricity-derived PtL SAF share, enabling the production and sale of eligible SAF into the UK market.

Sincerely,

Berlin, 01/06/2025



Patrick Kohl

Expert Certification Support & Sustainability Services

Contact us

Patrick Kohl
Peterson Solutions

pkohl@onepeterson.com