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**Joint Standing Committee on Northern Australia**

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**RE: Inquiry Into Preparing for Emerging Industries Across Northern Australia – Responses to Questions on Notice**

Thank you for the opportunity to present evidence to the Joint Standing Committee on Northern Australia as part of the inquiry into preparing for emerging industries across Northern Australia on 6 March 2026.

We provide the following additional information in response to questions taken on notice.

**Senator McDonald Question – Recommendation on the design of the GO Scheme**

We refer to Senator McDonald’s request for recommendations on how the Guarantee of Origin (GO) Scheme can be designed to align with international frameworks. We provide the following information:

The Guarantee of Origin (GO) Scheme is a voluntary framework for emissions accounting of products, providing transparent and verifiable information to support the development and trade of low-emissions fuels.

The international landscape for low carbon liquid fuels (LCLF) is governed by comprehensive frameworks that ensure environmental, social, and economic safeguards, evolving from voluntary to mandatory standards over the past decade.

Typically, leading international standards combine:

- a) A Carbon Intensity (CI) score using a Life Cycle Assessment (LCA) methodology, which includes:
  - i. A “core” CI value that represents emissions from the production process and feedstock production, including emissions associated with direct land use change (dLUC)
  - ii. A modelled emissions factor to account for indirect land use change (iLUC), where applicable.<sup>1</sup>
- b) A set of sustainability criteria that provide the minimum social and environmental standards the production of LCLF must meet.

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<sup>1</sup> dLUC and iLUC typically only apply to cultivated feedstocks (e.g. crops etc) and does not apply to wastes, residues or by-product feedstocks.

The Australian Government's expansion of the Guarantee of Origin Scheme (GO Scheme) to include LCLF currently excludes land use change and sustainability criteria.

As it stands, this creates three critical risks:

1. **Social License Risk:** Environmental NGOs and expert groups may challenge the scheme's credibility for ignoring land use and sustainability impacts, particularly given Australia's unique environmental context.
2. **Export Market Access Risk:** Jurisdictions integrating iLUC (EU, CORSIA, LCFS) may not recognise GO-certified fuels lacking iLUC treatment, undermining the GO Act's objectives for transparency, credibility, and alignment with international standards (Section 29). For example, a CI score for SAF produced using a Go Scheme method is likely to have a significantly different (lower) CI score than once produced using an international method like ICAO-CORSIA.
3. **Competitive Distortion:** High-risk feedstocks (e.g., palm oil from converted land) may receive equivalent treatment to low-risk Australian rotational crops, disadvantaging domestic producers with superior sustainability practices. Equally, exclusion of iLUC does little to help incentivise the market to invest in and produce novel, low iLUC-risk feedstocks.

#### **Recommendation**

1. Allocate additional time and resources to the ongoing development of GO Scheme methods to ensure sufficient opportunity for further consultation, so that the scheme can be designed to be truly fit-for-purpose in supporting these products.
2. Work with industry to develop the settings needed to support the industry's development, growth and social license, including:
  - a. A robust LCA methodology that is both internationally aligned and contextually appropriate for Australian feedstocks and conditions;
  - b. Builds in measures to address land use change (direct and indirect), but in a manner that does not unfairly penalise Australian feedstocks – for example, a risk-based rating of feedstocks rather than modelled iLUC scores; and
  - c. A set of broader sustainability criteria that is both internationally aligned and contextually appropriate for Australian feedstocks and conditions.

#### **Senator McDonald Question – Breakdown of renewable production subsidies across international jurisdictions**

Below are selected examples of renewable fuel support across key international jurisdictions:

- **US Inflation Reduction Act (IRA) of 2022:** Represented a landmark moment for US energy policy, introducing US\$ 369 billion in incentives for energy and climate-related programs, including: - Tax credits, research loans, and grants to increase domestic manufacturing capacity for wind turbines, solar panels, batteries, electric vehicle and other essential components of clean energy production and storage; - Clean electricity production and investment tax credits as well as grants and loans for clean energy infrastructure, including

electric transmission development; - Clean manufacturing tax credits to reduce emissions in energy intensive industries, increase energy efficiency in manufacturing as well as manufacturing conversion grants; - Programs to reduce the environmental impact of agriculture.

- **US, 45Z SAF Clean Fuel Production Credit:** The Clean Fuel Production Credit is a newly established tax credit for clean fuel production, beginning January 1, 2025. The income tax credit is for the domestic production of clean transportation fuel, which is divided into two broad categories: sustainable aviation fuel (SAF) and non-SAF transportation fuel.<sup>2</sup>

The tax credit amount is \$0.20 per gallon for non-aviation fuel and \$0.35 per gallon for SAF. For facilities that satisfy the prevailing wage and apprenticeship requirements, the credit amount is \$1.00 per gallon for non-aviation fuel and \$1.75 per gallon for SAF. The CFPC is structured on a sliding scale, so that producers become eligible for larger credits as the lifecycle GHG emissions of their fuels approach zero.<sup>3</sup>

As highlighted by the Renewable Fuels Association in the United States, the structure of the 45Z SAF Clean Fuel Production Credit has created an unintended disincentive for the production of ATJ SAF due in large part from volume loss when converting ethanol to SAF. As a result, the same ethanol generates more 45Z value if left as ethanol than if it were processed through an ATJ unit and sold as SAF. Furthermore, the conversion of ethanol to SAF adds to the carbon intensity of the finished product relative to the ethanol feedstock, further disadvantaging SAF with respect to 45Z value.<sup>4</sup>

- **The Biodiesel Tax Credits (part of Inflation Reduction Act):** Tax credits from US\$1.00 - US\$1.75 per gallon incentivising the adoption of biodiesel, renewable diesel and alternative fuels, inclusive of second-generation biofuels. Fuel must meet certain emissions standards. Credit-per-gallon base amounts are \$0.20 (non-aviation fuel) and \$0.35 (aviation fuel). Increases in credit amount to \$1.00 per gallon (non-aviation fuel) and \$1.75 per gallon (aviation fuel) if wage and apprenticeship requirements are met. Under the credit, the lower a fuel's carbon intensity score, the higher the potential credit.<sup>5</sup> The uptake effect from tax crediting systems in the US, while inexact, has led to a large uptake of renewable fuels with an increase of 4 billion to 17 billion gallons of ethanol and 100 million gallons to 2 billion gallons of biodiesel.<sup>6</sup>
- **US Sustainable Aviation Fuel (SAF) Tax Credit:** Producers of SAF are eligible for a tax credit of \$1.25 per gallon. Qualifying SAF must reduce greenhouse gas (GHG) emissions by 50%. SAF that decreases GHG emissions by more than 50% is eligible for an additional \$0.01 per gallon for each percent the reduction exceeds 50%, up to \$0.50 per gallon.<sup>7</sup>
- **Canada, Biofuel Production Incentive & Clean Fuels Fund:** The Canadian government is taking action to assist the country's canola and agriculture producers by introducing a new biofuel

<sup>2</sup><https://www.congress.gov/crs-product/IF12502>

<sup>3</sup><https://www.worley.com/en/insights/our-thinking/chemicals-and-fuels/ethanol-to-jet-aviation-key-to-net-zero>

<sup>4</sup><https://ethanolrfa.org/file/2953/RFA%20Comments%20re%20Notice%202025-10%2045Z%20Clean%20Fuel%20Production%20Credit.pdf>

<sup>5</sup> Deloitte, 'The Transitioning Australia's Liquid Fuel Sector: The Role of Renewable Fuels Report' (May 2023)

<sup>6</sup> Ibid, page 24.

<sup>7</sup> <https://afdc.energy.gov/laws/13160>.

production incentive and amending the country's Clean Fuel Regulations to support the domestic biofuels industry. The government will immediately introduce new biofuel production incentives that will provide more than \$370 million over two years to help domestic producers and restructure their value chains. The incentive will be provided on a per-liter basis to Canadian producers of biodiesel and renewable diesel and will be available from January 2026 through December 2027 for up to 300 million liters (79.25 million gallons) per facility.<sup>8</sup>

- **UK, Revenue Certainty Mechanism:** In January 2025 the UK government confirmed the government's decision to implement a Guaranteed Strike Price (GSP) model to help attract the necessary long-term funding to support the SAF industry meet the demand generated by the UK SAF Mandate. This proposes a production tax incentive through a Guaranteed Strike Price (GSP) mechanism is combined with clear demand-side measures as part of an integrated policy suite. Additionally, the Ministry of Defence is also bound by emissions reduction and renewable fuel use targets.<sup>9</sup>
- **UK, Contracts-for-difference:** The first use of a CfD policy to support sustainable projects was the low-carbon electricity CfD policy implemented in the UK in 2014. This mechanism has been particularly effective in terms of its impact on offshore wind with 13 GW of projects in the four rounds carried out to date and with prices falling from US\$164.59/MWh to US\$46.61/MWh<sup>10</sup>.
- **European Commission Sustainable Transport Investment Plan:** The European Commission announced a €2.9 billion plan to scale up investments in green fuels by 2027, an initiative that aims to rapidly accelerate the energy transition in aviation and marine sectors, including through the use of sustainable aviation fuel (SAF) and marine biofuels.<sup>11</sup>
- **EU Innovation Fund:** The Innovation Fund in Europe has awarded €2.9 billion in grants to 61 net-zero technology projects, including four SAF projects, providing approx. €100–150 million for large-scale projects. While effective at distributing significant capital, the scheme is complex to apply for, requiring specialist support, and its impact on LCLF varies year to year since it is not focused solely on low-carbon fuels.<sup>12</sup>
- **Brazil Financial Incentives:** Brazil offers a number of supports such as preferential tax treatment for flex-fuel vehicles amounting 1 to 3 percentage points less tax for flex-fuel vehicles primarily through lower Tax on Industrialised Products. There is also preferential tax treatment for ethanol compared to gasoline under federal taxes and import taxes as well as tax exemptions and incentives for biodiesel depending on the raw material, scale of the production and the region of the production and different state level taxes. The Brazil National Bank for Social and Economic Development also provides credit lines for sugar, ethanol, cogeneration, logistics and transport and feedstock investment and a separate

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<sup>8</sup><https://biodieselmagazine.com/articles/canada-introduces-new-biofuel-production-incentive-in-response-to-trade-disruptions-tariffs>

<sup>9</sup><https://www.gov.uk/government/consultations/saf-revenue-certainty-mechanism-approach-to-industry-funding/outcome/saf-revenue-certainty-mechanism-approach-to-industry-funding-government-response>

<sup>10</sup> Deloitte, 'The Transitioning Australia's Liquid Fuel Sector: The Role of Renewable Fuels Report' (May 2023)

<sup>11</sup> <https://ethanolproducer.com/articles/eu-to-invest-nearly-eur-3-billion-in-sustainable-aviation-marine-fuels>

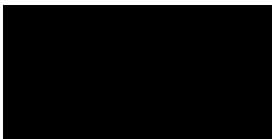
<sup>12</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_25\\_2564](https://ec.europa.eu/commission/presscorner/detail/en/ip_25_2564)

climate fund to reduce carbon intensity. The Ministry of Energy and Mines can also incentivise and provide special tax regimes for bioenergy projects.<sup>13</sup>

- **Japan:** The Japanese Government has introduced 340 billion yen (\$2.3 billion) in government subsidies over five years to support local SAF production.
- **Japan, 2024 Tax Reform Act:** Introduces a tax credit to promote domestic production of strategic goods, including SAF. Companies can claim a credit (JPY30 per litre) based on either the volume of SAF produced and sold (within 10 years of plan certification but before 31st March 2027) or the acquisition cost of production assets – whichever results in a lower credit. The maximum credit per year is capped at 40% of the corporate tax liability, with a four-year carry forward.<sup>14</sup>
- **Republic of Korea, Blending mandate, tax credits and financial incentives:** The government has established a phased blending mandate for SAF, requiring a 1% blending ratio by 2027, increasing to 3–5% by 2030 (with the final ratio to be determined in 2026), and reaching 7–10% by 2035 (to be finalised in 2029). In addition to these blending requirements, the government continues to provide tax credits and financial incentives to support SAF research, development, and production facilities, offering up to 25% investment support and 40% R&D support.<sup>15</sup>

Please don't hesitate to reach out with any questions or if we can be of further assistance, to myself at [REDACTED] or [REDACTED]

Yours sincerely



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<sup>13</sup> <https://biofuelsalliance.com/assets/img/biofuel-policy-brazil-india-usa.pdf>

<sup>14</sup> <https://www.ishkaglobal.com/Savi/Article/7809/SAF-Policy-Map-Updates-from-Colombia-EU-Japan-Thailand-and-more>.

<sup>15</sup> <https://www.greenairnews.com/?p=8125>