

25 March 2025

Department of Climate Change, Energy, the Environment and Water (DCCEEW)
Guarantee of Origin and Trade Section

Re: Advocacy for the Inclusion of Sustainable Biomass Sources in the Guarantee of Origin Legislation

On behalf of the Australian Industrial Ecology Network (AIEN), we submit this letter in strong support of a balanced and transparent framework for the eligibility of biomass under the Guarantee of Origin (GO) legislation. The AIEN is dedicated to advancing industrial ecology principles, ensuring resource efficiency, and fostering circular economy initiatives that drive sustainable development.

To ensure regulatory clarity and environmental integrity, we propose that the Guarantee of Origin legislation explicitly define eligible and ineligible biomass sources to support the growth of a sustainable bioenergy industry whilst protecting native ecosystems.

A. Inclusion of Sustainable Biomass Sources

AIEN strongly advocates for the inclusion of **biomass derived from sustainable sources** that align with **circular economy principles** and contribute to emissions reductions. This should include:

- Purpose-grown energy plantations
- Perennial grasses and energy crops
- Waste biomass from invasive species control programs
- Biomass from invasive species, as defined by Local Land Services NSW¹, approved under the Land Management (Native Vegetation) Code 2018:
 - Division 1: Low-Impact Clearing of Invasive Native Species
 - Division 2: Moderate-Impact Clearing of Invasive Native Species
- Biomass materials from approved land clearing works, including:
 - Material cleared in accordance with a land management (native vegetation) code under the Local Land Services Act 2013 (Part 5A, Division 5).
 - Residues from approved civil infrastructure, road clearing works, and related projects—typically retained on site, stacked in windrows, and burned to reduce development impact.
- Agricultural waste biomass products or residues

¹ Or equivalent for other Australian states and/or territories e.g. *Queensland Biofutures 10-Year Roadmap and Action Plan (June 2022)* <https://www.statedevelopment.qld.gov.au/industry/critical-industry-support/biofutures>

- End-of-life waste woody biomass, manufactured and processed into a fuel specification (“Domestic Biomass”), subject to EPA approval as an eligible waste fuel.
- Other sources of eligible waste fuels permitted under the NSW Protection of the Environment Operations (General) Regulation 2021 and EPA Eligible Waste Fuel Guidelines².

AIEN strongly advocates for the inclusion of biomass derived from sustainable sources that align with circular economy principles and contribute to emissions reductions. This should include:

AIEN strongly advocates for the inclusion of biomass derived from sustainable sources that align with circular economy principles and contribute to emissions reductions, including:

- Agricultural residues
- Plantation forestry by-products
- Legally approved land management and restoration activities, including biomass sourced from environmental weed or invasive species control programs
- End-of-life wood materials and other eligible waste-derived biomass

This inclusion will support the development of a responsible bioeconomy, incentivize investment in renewable energy projects, and drive job creation and industry growth within regional areas.

B. Exclusion of Biomass from Forestry Saw Logging Activities in Naturally Occurring Native Forests

To maintain environmental integrity, AIEN supports the explicit exclusion of biomass sourced from forestry saw logging activities within naturally occurring native forests. Additionally, biomass from land-clearing activities that do not align with approved land management or environmental restoration objectives should not qualify under this framework. By codifying these exclusions, the legislation ensures that Australia's renewable energy transition remains sustainable and does not contribute to deforestation or ecosystem degradation.

To ensure the protection of native ecosystems and compliance with sustainability objectives, we propose an explicit exclusion of biomass sourced from forestry saw logging activities in naturally occurring native forests. By codifying this exclusion, the legislation will eliminate ambiguity and ensure that Australia's renewable energy transition does not contribute to deforestation or ecosystem degradation.

Why Sustainable Biomass Should Be Eligible for GO Certification

The ARENA Bioenergy Roadmap highlights the critical role of bioenergy in Australia's economic and environmental future. Integrating these insights into the GO framework will provide substantial benefits, including:

1. **Drives Economic Growth & Job Creation** – The bioenergy sector has the potential to contribute \$10 billion annually to Australia's GDP and create 26,200 new jobs by 2030. – Utilising sustainable biomass aligns with industrial ecology principles by ensuring that waste streams are repurposed into energy, reducing reliance on fossil fuels.

² Or equivalent waste fuel guideline for other Australian states and/or territories

2. **Supports Industrial Ecology & Circular Economy Goals** – Utilising sustainable biomass aligns with industrial ecology principles by ensuring that waste streams are repurposed into energy, reducing reliance on fossil fuels. – A clear framework for eligible biomass will incentivise investment in bioenergy infrastructure and create long-term economic opportunities.
3. **Enhances Waste Management & Fuel Security** – The sector can divert an additional 6% of waste from landfills, improving resource recovery and strengthening Australia’s energy independence. – Expanding sustainable biomass use will generate employment and encourage new industries to establish within bioenergy hubs.
4. **Reduces Waste & Improves Land Management** – Repurposing biomass from agriculture, plantations, and end-of-life wood will support responsible waste management and enhance land restoration efforts.
5. **Offsets Transport & Processing Costs for Biomass Utilisation** – Ensuring GO certification for eligible biomass will help reduce the financial barriers to transporting and processing sustainable biomass, making bioenergy projects more viable and encouraging greater participation in the sector. – Enabling GO certification for eligible biomass will help offset transport and processing costs, improving the feasibility of bioenergy projects.
6. **Reduces Emissions & Aligns with National Decarbonisation Goals** – Bioenergy could cut Australia’s emissions by 9%, making it a crucial part of the transition to net zero. – The inclusion of sustainable biomass supports Australia’s decarbonisation efforts and ensures alignment with international best practices.

Recommendation

The AIEN encourages the Department to adopt a clear inclusion and exclusion framework for biomass under the GO legislation. By ensuring that sustainable biomass sources are eligible while explicitly excluding native forestry saw logging residues, the legislation can provide certainty for investors, support industrial ecology principles, and accelerate Australia’s transition to a low-carbon economy.

Conclusion

As a leading advocate for industrial ecology and resource efficiency, AIEN supports policies that drive the responsible use of biomass while safeguarding environmental sustainability. We appreciate the opportunity to contribute to this consultation and welcome further discussions on how best to integrate circular economy principles within the Guarantee of Origin framework.