

Australian Government  
Department of Climate Change, Energy, the Environment and Water

Submission via the Department's Consultation Hub

18 July 2024

## **RE: Unlocking Australia's low carbon liquid fuel opportunity**

Rio Tinto welcomes the opportunity to make a submission to the Department of Climate Change, Energy, the Environment and Water (the **Department**) on opportunities associated with a domestic low carbon liquid fuel (**LCLF**) industry.

Rio Tinto acknowledges that we have an important role to play in driving forward the energy transition. We have committed to decarbonising our assets by reducing our scope 1 and 2 emissions to net zero by 2050 and making significant investments by 2030 towards delivery of our decarbonisation strategy.

In 2023, Rio Tinto's scope 1 and 2 emissions were 32.6 million tonnes CO<sub>2</sub>e of which around 60% were generated by our Australian assets. Most of Rio Tinto's emissions from global surface mining operations are generated by the consumption of fossil diesel in heavy mining equipment, locomotives and associated industrial engines. Rio Tinto consumed 1.6 billion litres of diesel at our major managed operations in 2023, accounting for 12% of our scope 1 and 2 emissions.

The transition from fossil diesel to renewable diesel represents an opportunity for Rio Tinto to significantly reduce emissions in the short to medium term. Our modelling of energy sources and systems indicate that the most efficient and cost-effective long term-solution to reduce fossil diesel use in mining fleet and equipment is electrification, however we are not expecting mass deployment of battery electric haul trucks throughout our operations to be technically or commercially feasible before 2030. The challenges and timeframes involved with full deployment of electrification means that we are developing complementary pathways to more immediately reduce diesel-sourced emissions, including the use of LCLF, while we continue to invest in R&D projects to support electrification.

Given the potential timeframes and challenges associated with large scale development and deployment of battery vehicles in some industries, government policies are needed to support market development and competitiveness of LCLF such as renewable diesel.

Renewable diesel for use in mining fleet is technically proven and delivers approximately 75% lower life cycle emissions than fossil diesel fuel. Rio Tinto has, or is currently in the process of, converting some of our US mining operations to renewable diesel. However, the sustainable supply of feedstock and a developed domestic Australian market are critical constraints to accelerated industry-wide use. This is reflected in the higher price of renewable diesel in Australia compared with fossil diesel.

We support plans by the Department to establish a policy environment which supports investment in the development of a strong domestic market for LCLF. Alternative low carbon fuels offer significant emissions reduction opportunities across the resources, industrial, transport and agricultural sectors. In addition to the near-term emissions reductions opportunities, developing a domestic LCLF industry in Australia has broader

benefits including potential for regional jobs, economic development for communities and traditional owners, and supporting Australia's fuel security.

Barriers to the development of a domestic market include lack of incentives for consumers and producers, regulatory uncertainty discouraging investment in domestic production, unattractive business cases for sustainable biogenic feedstock projects, and limitations in the ability to account for emissions reductions from switching to LCLF.

A multi-pronged approach that supports development of feedstocks options, incentivises investment by producers in refining capacity and supports the development of a competitively priced product for consumers is required. Government measures to increase the supply of sustainable biogenic feedstocks and provide policy certainty around use of and recognition of LCLF are instrumental in supporting the investment decisions required along the value chain and developing a liquid renewable diesel market.

### ***Incentives to develop a liquid low carbon fuel market***

#### *Supply side incentives*

Australia is well placed to benefit from the development of a sustainable, domestic LCLF industry but support is required to incentivise the production and use of biofuels at volume. Policies that equally incentivise the production of LCLF across industries, including both sustainable aviation fuel and renewable diesel will be vital to ensuring cross economy emissions reductions are able to be achieved, particularly in the early stages of market development where supply of feedstocks may be constrained.

At the feedstock and alternative fuel options level of the LCLF value chain, incentives could include support for R&D and pilot programs, and incentives for landowners to develop advanced biofuel feedstock crops in suitable areas.

Supporting the economics of developing LCLF farming projects by creating pathways for these to be recognised under the Australian Carbon Credit Units (ACCU) Scheme could incentivise growth. This could serve the dual purpose of supporting development of Australia's LCLF industry, while expanding ACCU supply to help meet expected demand from facilities under the Safeguard Mechanism as structural decarbonisation solutions are developed and implemented.

Production tax incentives for producers and investment incentives which support the development of a local refining industry could provide the investment certainty required for projects underpinning the supply required to support a competitively priced domestic market.

Given the quantum of LCLF options that Australia will require to decarbonise its large fossil diesel users including the resources, aviation, agriculture and transport industries, ensuring that domestic production is balanced to provide certainty and adequacy of supply for domestic industrial use compared with any exports will support competitive local pricing and incentivise uptake.

#### *Demand side measures*

For industrial users of fossil diesel, the design of the Safeguard Mechanism economically incentivises scope 1 (including diesel-related) emissions reduction. Therefore for Rio Tinto, reducing diesel-related emissions aligns with our roadmap to meet climate targets, but is also required to reduce Safeguard-related costs. Additional demand side measures such as mandating fossil diesel reductions, including LCLF mandates, could increase operating costs for industrial fossil diesel users at a time when alternative fuel sources are not competitively available at the scale required.

Demand side measures to support development of the LCLF market should be focussed on incentivising users to switch to low carbon fuel alternatives by enabling full recognition of emissions reductions for the use of these fuels. We encourage the Government to develop a certificate scheme to allow for unique claims of emissions linked to low carbon fuels. Rio Tinto is supportive of Australia implementing a Guarantee of Origin Scheme with transparent and consistent emissions accounting for lower carbon products such as LCLF and addresses the current gap in recognising renewable energy not covered by the RET.

Additionally, to remove uncertainty for investors and other stakeholders, promote best practice, and maximise emissions reduction, we encourage the Government to develop clear guidelines to define the sustainability of LCLF in Australia. Lifecycle emissions and other sustainability-related impacts vary significantly depending on feedstock type and land use considerations, processing-related emissions and waste, transportation, and co-benefit opportunities.

We thank the Department for the opportunity to engage on the development of a low carbon liquid fuel industry in Australia.

We would welcome the opportunity to discuss this submission with you further. In the interim, if you have any questions, please contact Rachel Storrs ([Rachel.storrs@riotinto.com](mailto:Rachel.storrs@riotinto.com)).

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'J. McCarthy', with a long horizontal flourish extending to the right.

Jonathon McCarthy  
Chief decarbonisation officer