Committee Secretary
Senate Standing Committees on Economics
PO Box 6100
Parliament House
Canberra ACT 2600

CLIMATE ENERGY FINANCE

Climate Energy Finance Submission
Senate Economics Legislation Committee Inquiry into The Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024 [Provisions]

09 January 2025

Dear Committee Secretary,

Climate Energy Finance (CEF) is an Australian based, philanthropically funded think tank established in 2022 that works pro-bono in the public interest on mobilising capital at the speed and scale needed to accelerate decarbonisation and the energy transition consistent with the climate science.

CEF conducts research and analyses on global financial issues related to the energy transition, from fossil fuels to clean energy, as well as the implications for the Australian economy, with a key focus on the threats and opportunities for Australian investments, regional employment and value-added exports. CEF is independent and works collaboratively with partners in the corporate and finance sectors, NGOs, government and the climate movement.

CEF welcomes the opportunity to provide feedback and recommendations to the Senate Standing Committee on Economics into the Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024 [Provisions] (hereinafter referred to as 'The Bill') that will establish the critically important Hydrogen Production Tax Incentive (PTI) and Critical Minerals PTI that will support the development of a decarbonised, value-added economy in Australia.

Key Points of CEF's Submission:

1. CEF **supports the legislation** of the Hydrogen PTI and the Critical Minerals PTI as a strategic, time-limited budget mechanism under the Future Made in Australia (FMIA) framework to support first movers in decarbonised, value-added industries. CEF recommends the design of the Critical Mineral PTI be replicated and extended to provide a **PTI for the value-add of iron**.
2. To further support scaling green metals industries, CEF recommends the **prioritisation** of **demand-side incentives** for developing a domestic green metals industry to complement the tax credit mechanisms introduced and ensure maximum value at least cost to taxpayers.
3. CEF recommends the Federal Government **actively participate and advocate** for international pricing mechanisms that will introduce a **harmonised price on carbon in Asia-Pacific trade (an Asian CBAM)**, complementing and building on the domestic pricing measures introduced via Australia's Safeguard Mechanism, China's National ETS, and Japan's recently proposed national carbon pricing initiative.
4. CEF recommends prioritising **reforms to renewable energy approval processes** for zero-emission generation and storage capacity that will support domestic hydrogen production and direct electrification of value-added processing of future-facing resources, primarily green iron.
5. CEF supports the development of specific, plausible rules to ensure that FMIA **community benefit principles** can be effectively and enforceably applied to the Hydrogen and Critical Minerals PTIs, ensuring the strong and durable worker and community benefits necessary to build and maintain social licence for these growing industries.

Section 1. Hydrogen and Critical Mineral Production Tax Incentives

CEF supports the introduction of the Hydrogen PTI and Critical Mineral PTI as part of the FMIA re-industrialisation package that was assented to in December 2024. Implementing such supply-side incentives provides a mechanism to rapidly support early producers in green hydrogen and value-added critical minerals.

Absent a carbon price to accurately cost-in negative externalities present in fossil fuel consumption in energy-intensive industries, the most effective way to reach price parity with traditional fossil fuel-dependent refining practices is to establish production based tax incentives for projects that leverage Australia's abundant natural resources to embed decarbonisation in our key and emerging exports, until carbon emissions are explicitly priced in international trade.

As articulated in The Bill's Explanatory Memorandum, renewable hydrogen opens the door to green metals value-adding, including iron, steel, alumina and ammonia nitrate fertilizers/explosives. The merit of production tax incentives is the ability to stack multiple support measures across the value chain of critical minerals and strategic metals refining to maximise the use of renewable energy in the mining and refining process and start the expensive but critical process of re-industrialisation of Australia. CEF endorses this approach for Australia. This shifts the majority weighting of support to producers with full operational decarbonisation objectives from the outset, without relying on fossil-based fuels that provide only a partial emissions intensity reduction.

CEF supports the Government's view that leaving the market to manage the challenges faced in the future-facing resources sector, and relying solely on existing support measures, is a major risk for Australia. CEF entirely agrees with the comments made in the Explanatory Memorandum that the energy transition is occurring now, and without intervention there is a very real possibility that Australia will be left behind and not capture the full value of the opportunity that the energy transition presents.

CEF supports the conclusions made in The Bill's Explanatory Memorandum's Impact Analysis on Critical Mineral PTIs. Australia cannot rely on the existing natural rate of investment determined by normal investment cycles given the expected significant demand pressures arising from global net-zero transformation efforts to develop sovereign capability in the sector. Further, global issues that underpin price instability and market uncertainties require government intervention through public investment to crowd in the necessary private capital to ensure Australia reduces its exposure to supply chain concentration and negative external market shocks that introduce downward price pressure for Australia's ores. CEF strongly urges the Government to recognise the analogous market conditions for value-adding iron ore, and extend the tax credits to Australia's principal and most exposed future-facing export.

Section 1.1. Recommendation to Introduce PTI for Value-added Iron Processing

In 2023-24, Australian iron ore exports generated $138bn in revenues, the largest fuel and resource export industry in Australia by volume and value. CEF agrees with the government's perspective that intervention through supportive budget measures to alleviate the cost premium of value-adding critical minerals is vital to address market failures and develop industrial capabilities critical to the economic resilience and security of Australia. However, failure to extend these measures to facilitate the creation of a green iron industry in Australia is the single biggest risk to Australia in the global transition to a decarbonised economy, and presents a far greater upside potential than critical minerals given the scale of Australia's iron ore industry. The new Future Fund Mandate is another good step forward, but cost-competitive value-adding production requires a PTI or equivalent, as we wait for an Asian CBAM or equivalent to be implemented (waiting for this is a losing strategy).

CEF sees the expansion of PTIs into **strategic green metals refining and value-adding iron** as an imperative for the Federal Government to incentivise private investment and so realise the massive economic and investment opportunity it presents to transition Australia from a historical petrostate to a world-leading electrostate, exporting Australia's renewable energy resources through embodied decarbonisation in our

commodity exports. CEF sees this as a key opportunity to build investment, regional employment and net export growth in alignment with the FMIA.

Australia needs to be fully cognizant that global capital will gravitate to the markets with the best risk-return metrics and best policy support. China leads the world in almost all zero emissions industries of the future. The US Inflation Reduction Act, and government policy and financial supports in Canada, Japan, Korea, India and the EU means that if Australia 'leaves it to the free market' we will miss out on the massive investment and employment opportunities of an appropriately ambitious strategic national interest driven response to the rapidly evolving global energy transformation.

Section 2. Further Measures Required to Forge a Green Metals Industry

The Harvard Kennedy School's Economic Complexity Index ranks 133 countries with regard to their manufacturing capability. Australia has slipped from 55 in 1995 to 93 today. The de-industrialisation of the Australian economy is now underway, and will require a concerted government investment in reskilling to move away from the dig-and-ship mentality of the last 3-4 decades.

CEF's recent report on developing a green metals industry, 'Green Metal Statecraft: Forging Australia's Green Iron Industry', outlines the architecture for a policy package that, deployed as an orchestrated and complementary set of financing and support mechanisms across supply- and demand-sides of the market, can form the basis of Australia's green metal statecraft.

Australia needs to respond to the global threats to national security and economic resilience of increasingly concentrated global supply chains. The FMIA and the unlocking of green metal value-adding within Australia is a way to respond strategically to this, by extending and leveraging our existing mining competitive advantage as well as our potential to be a low-cost, world-scale renewable energy producer.

Section 2.1. Demand-side Incentives to Facilitate Price Discovery & Support Market Creation

One of the largest obstacles to private sector investment into commodity decarbonisation globally is the lack of long term contacts for clean commodities at a predictable price. The absence of willing and creditworthy contracting counterparties is throttling investment in clean commodity proposals.

CEF recommends Australia actively priorise the establishment of a government owned Trilateral Clean Commodities Trading Company (CCTC), jointly owned by Australia, South Korea, and Japan to accelerate the development of decarbonised, value-added industries in Australia, initially green iron. The CCTC's mandate would be to contract, purchase, and trade commodities produced via low-carbon pathways, while optimising the economic, political, environmental, and geostrategic benefits for the parties, and minimising government financial support by operating with a commercial mindset, while understanding governments' enabling role.

The CCTC's participation in the market will aid in accelerating price discovery in the emerging low-emission global iron market, especially in countries without a price on carbon. The lack of demand pull is also a key barrier to development of green metal markets. As a material player in the domestic market, the Federal and State Governments should be leading the development of market demand for embodied decarbonisation in our domestic market, leveraging the governments' collective buying and contracting power in procurement.

Mechanisms that will support the creation of offtake agreements are vital for securing supportive financing and debt facilities from domestic public financing institutions, including the NRF, NAIF, EFA, and the CEFC, as well as international export credit agencies from offtakers' countries.

Section 2.2. Carbon Pricing

The biggest barrier to unlocking investment in new green metal facilities and decarbonising existing facilities is the lack of a high, progressively increasing, regulated price on carbon emissions. The Safeguard

Mechanism is a good first step to reestablishing a price signal in the domestic market for Scope 1 emissions for our 219 largest polluting facilities. However, the price signal of carbon units of A$30-40/t is well below the A$75/t cap (rising with inflation +2% pa) that Federal Climate and Energy Minister Chris Bowen articulated at the relaunch. CEF strongly advocates for a progressive tightening of Australian Carbon Credit Unit (ACCU) supply and the need to flag the stage 2 extension of the safeguard mechanism to facilities of >25,000 tpa, from the current 100,000 tpa threshold.

CEF sees it as imperative that the Australian government collaborate with our key trade partners to provide the right financial incentives, and actively participate and contribute towards measures that can create an ESG premium and/or an Asian-Pacific Carbon Border Adjustment Mechanism (CBAM) to align and elevate the European Union CBAM.

First-of-a-kind (FOAK) capital deployments have a significant risk attached, and it is critical for Australia to learn-by-doing in the domestic context. The absence of a clear carbon emissions price signal in international trade (particularly in the greater Asian sphere) is a major barrier undermining Australian corporate leadership in investing in onshore refining, notwithstanding the global competitive advantage stemming from our world leading renewable energy resource potential.

As a key pillar of the FMIA National Interest Framework, targeted government intervention is justified where market failures are present, including where negative externalities from more emissions-intensive production methods are not appropriately priced into global markets, so cleaner production methods that present cost effective abatement opportunities are not able to compete on a level playing field with existing industry.

As a result, CEF endorses the short-term market support measures introduced in The Bill, providing tax offsets for hydrogen production, a major cost factor to value-adding, as well as the 10% PTI for critical minerals production to further reduce the cost differential from other factors of production that contribute to the green cost premium. However, CEF urges the Federal Government to recognise this is only a short-term solution, and that carbon pricing and market creation mechanisms must be prioritised in order to phase out public support over time.

In addition, the continued prioritisation of fossil fuels will also diminish the global progression and integration of carbon pricing to internalise the negative externalities of carbon emissions. Failure to address this key issue is demonstrated by Australian policymakers' willingness to propagate state support in the form of tax concessions and subsidies for our largest multinational emitters whilst simultaneously undermining policies that foster accelerated economy-wide decarbonisation and underpin intergenerational equity in a rapidly decarbonising world facing increasing climate pressures. CEF recommends the Federal Government phase out fossil fuel subsidies that directly contradict the strategic vision and directional momentum of a Future Made in Australia, primarily the **Fuel Tax Credit Scheme,** and reform failed fossil fuel industry taxation measures such as the ineffectual PRRT.

Section 2.3. Renewable Energy Approval Reforms

The largest factors to the levelised cost of hydrogen (LCOH) are the levelised cost of electricity (LCOE) and electrolyser capex. The December 2024 GenCost 2024-25 Consultation Draft, developed by CSIRO in partnership with the Australian Energy Market Operator (AEMO), highlights that battery firmed solar PV and wind is the cheapest LCOE of all new electricity generation technologies for the seventh year in a row. However, the forecast LCOE of firmed renewables in 2024 ($98-150/MWh) and 2030 ($67-137/MWh) still remain too high for green metals to be competitive against the dominant and alternative fossil fuel production pathways, notably for iron reduction. Australia must work collaboratively with global cleantech leaders, including welcoming partnerships with our #1 trade partner, China.

Renewable energy technologies are deflationary. As demand grows, advances in manufacturing efficiency, technology efficiency, and production volume collectively contribute to a positive feedback loop that drives down prices for manufactured clean technologies, thus lowering the capex intensity for new generation and

firming capacity. However, slow and complicated development approval processes for renewable energy and enabling infrastructure are a critical barrier that must be overcome for Australia to deploy the capex at speed and scale to unlock Australia's green metals and critical minerals industries.

To minimise the extensive grid transmission infrastructure investment for green metals, we recommend the establishment of a 'Renewable Energy Approvals Initiative' for distributed behind-the-meter generation and storage projects that will power green hydrogen production and electricity demand for value-added projects critical to underpinning the Government's FMIA initiatives and its Net Zero Transformation and Economic Resilience and Security streams.

Improvements in development timelines from reforms will take time to be realised. As a result, CEF supports PTIs to provide a time-limited, direct support measure to assist in bridging the gap between the cost of green hydrogen, critical minerals and strategic metals production to that of fossil fuel incumbent technologies whilst the Government implements measures to accelerate the cost deflation of the LCOE and capital expenditure intensities of firmed renewables.

CEF thanks the Government for the opportunity to comment on the Senate inquiry and looks forward to continued engagement and discussion with the Government on these nation-defining matters.

If the Committee would like to discuss any elements further, CEF's Net Zero Transformation Analyst Matt Pollard, can be contacted via [redacted].

Yours sincerely,

Tim Buckley
Director, Climate Energy Finance
w: climateenergyfinance.org e: [redacted]