

# Supercharge Australia: Retrofit Nation

AEVA Conference  
November 2023



(Energy)<sup>Lab</sup>

**NEW  
ENERGY  
NEXUS**



Supercharge



Australia

Supercharge Australia grows startups in  
the lithium battery value chain.

Startups deliver innovation.  
Processes, materials, machines, new  
business models.  
Startups help us move policy.

We need a fast-growing,  
export-oriented ecosystem of  
lithium battery value chain startups.



Supporting 150+ startups over 3 yrs.  
Bringing US and global expertise to  
Australia.  
Sharing our expertise with the world.  
Advancing Australian policy to make  
this happen faster.



X (Energy)<sup>Lab</sup>

Pioneering  
swappable  
battery  
infrastructure in  
Indonesia



## Oil displacement by vehicle segment

Vans and trucks



57,784 Barrels per day

Passenger cars



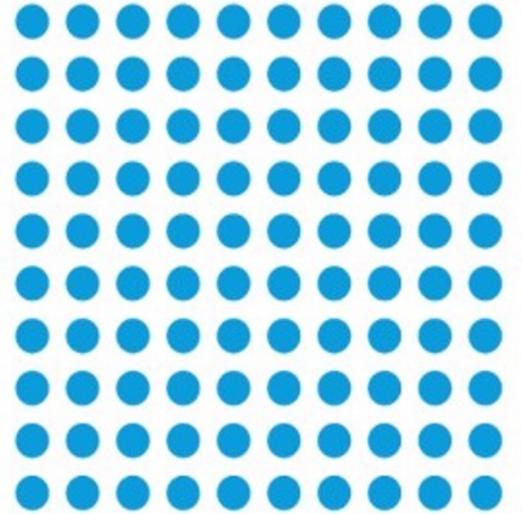
196,158 Barrels per day

Buses



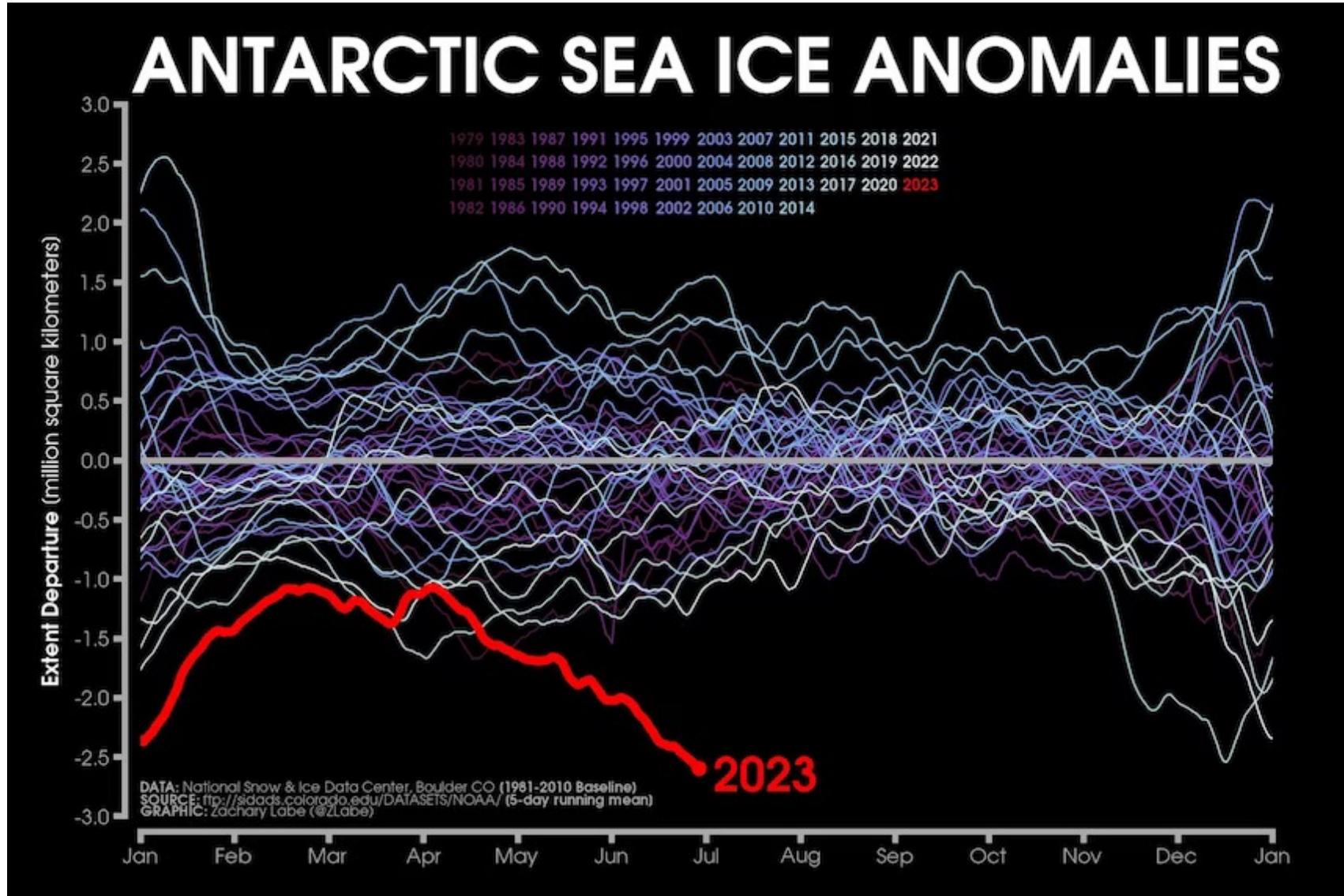
234,698 Barrels per day

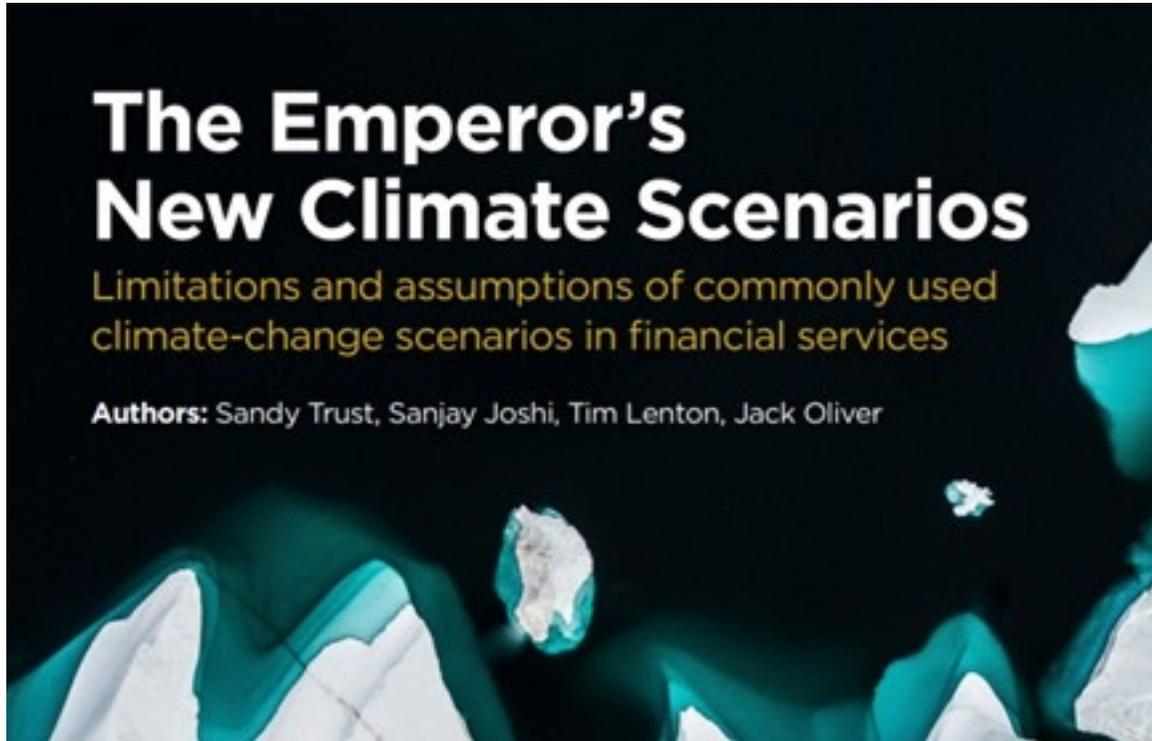
2 and 3 wheelers



1,010,228 Barrels per day

# Urgency – Climate and Ambition





Institute  
and Faculty  
of Actuaries

July 2023

## Loading the DICE against pension funds

Flawed economic thinking on climate has put your pension at risk

A photograph of a family—a man, a woman, and a young girl—gathered around a table, looking at a tablet. The image is overlaid with a semi-transparent roulette wheel and a glowing, golden sphere, symbolizing risk and financial uncertainty. The background is a dark blue gradient with a horizontal bar at the top divided into red, teal, and green segments.

Carbon Tracker

# Master Plan Part 3

Sustainable Energy for All of Earth



**240**<sub>TWh</sub>

Storage

**30**<sub>TW</sub>

Renewable Power

**\$10T**

Manufacturing Investment

**1/2**

The Energy Required

**0.21%**

Land Area Required

**10%**

2022 World GDP

**ZERO**

Insurmountable Resource Challenges

*Figure 2: Estimated Resources & Investments Required for Master Plan 3*



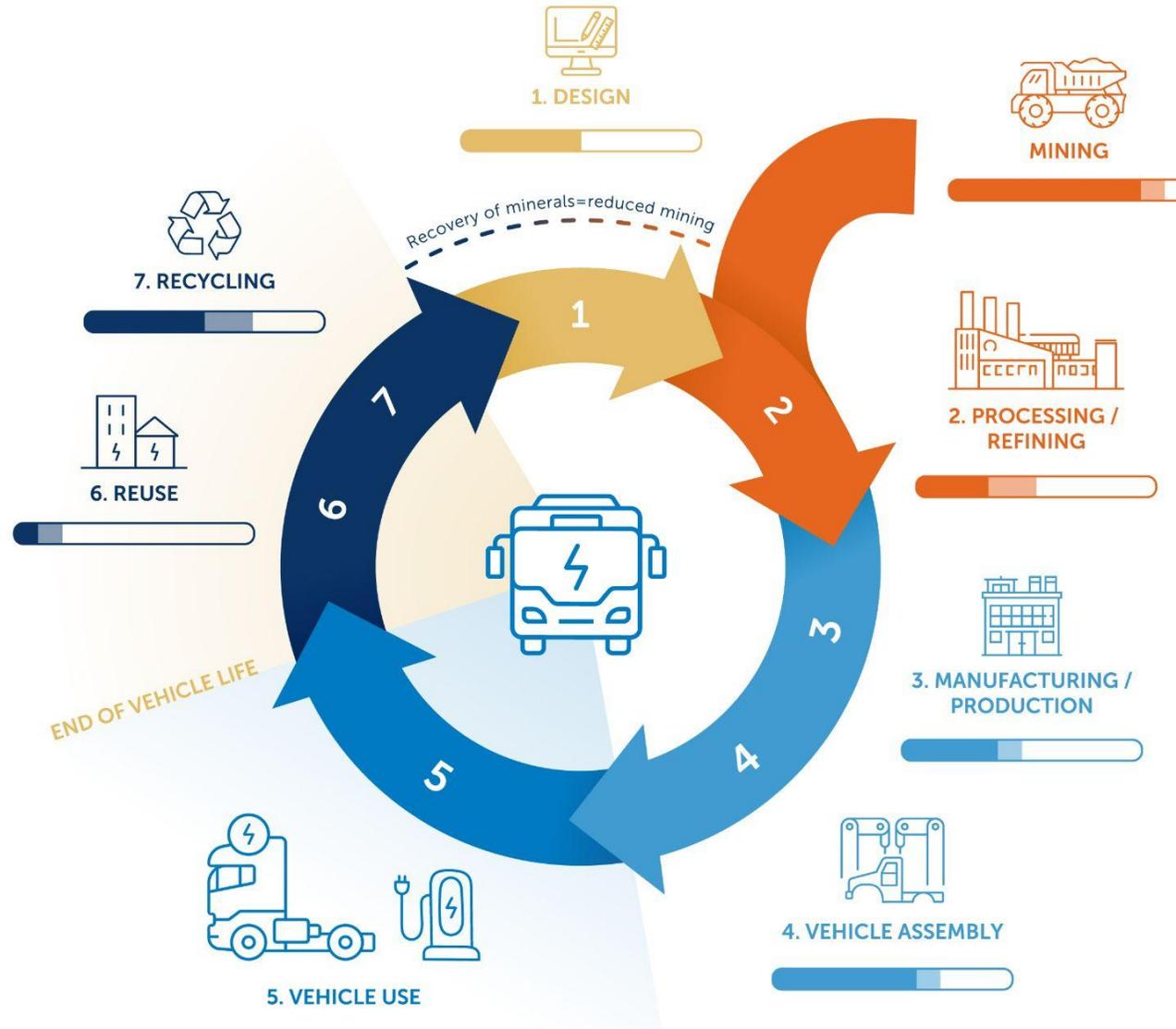
“Lithium has an extraordinary capacity. We need to not just dig it up. I want to make sure we use the lithium and nickel and other products we have to make batteries here.”

-Prime Minister Anthony Albanese, National Press Club, Feb 22, 2023



Cheaper EV's?

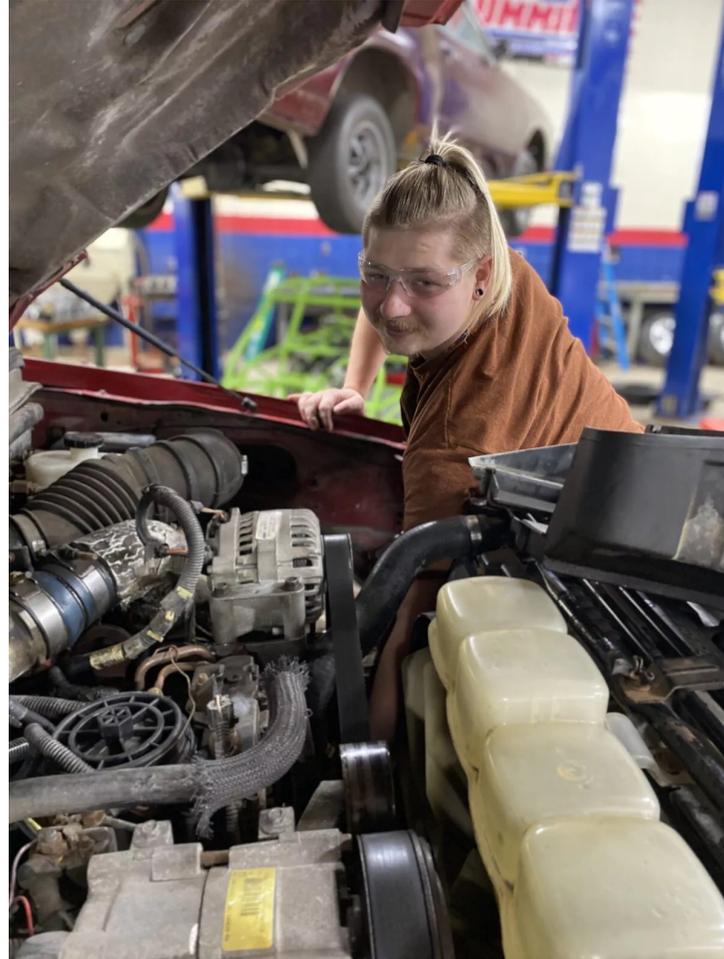
# Retrofit Nation





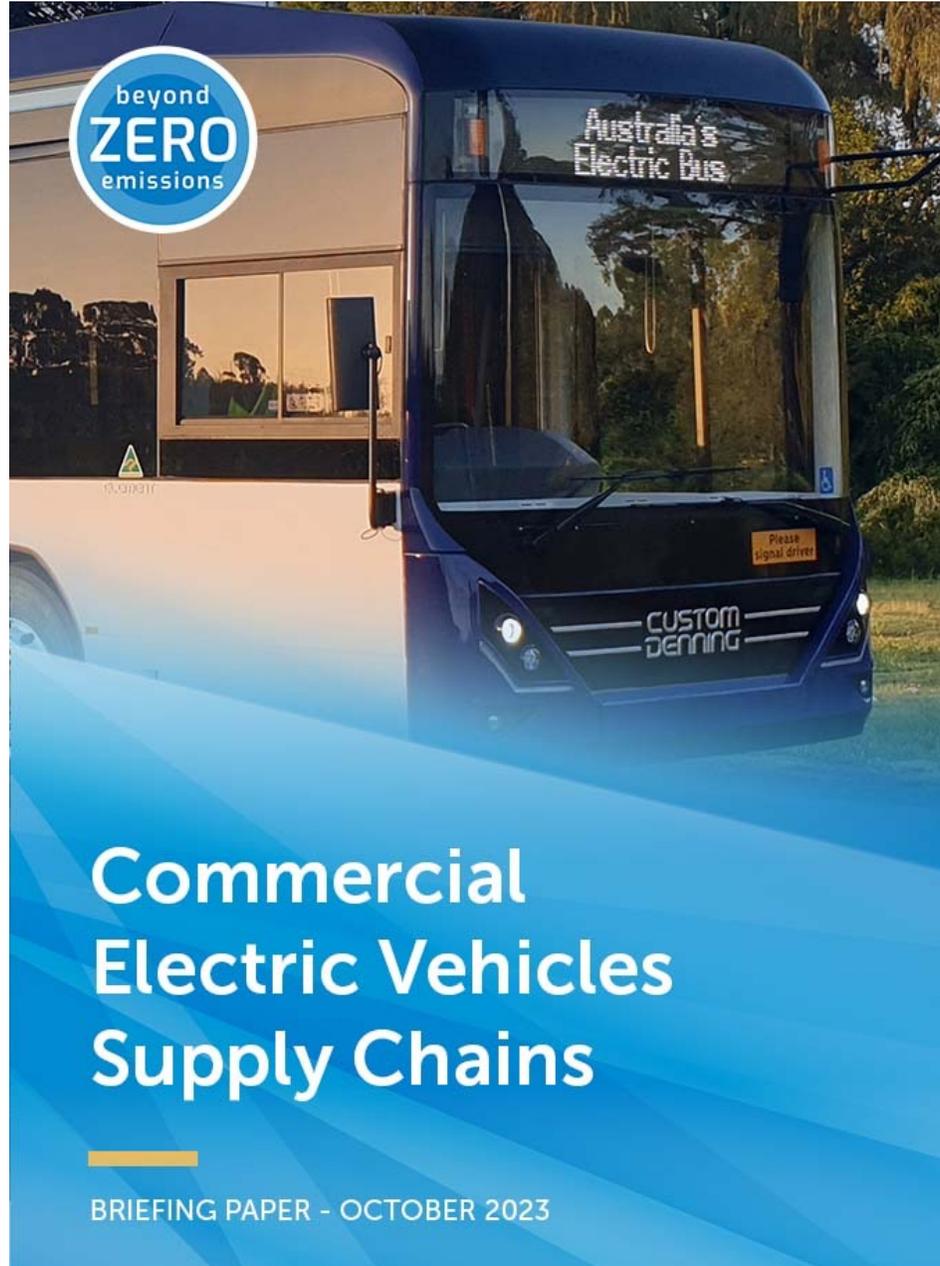












# Commercial Electric Vehicles Supply Chains

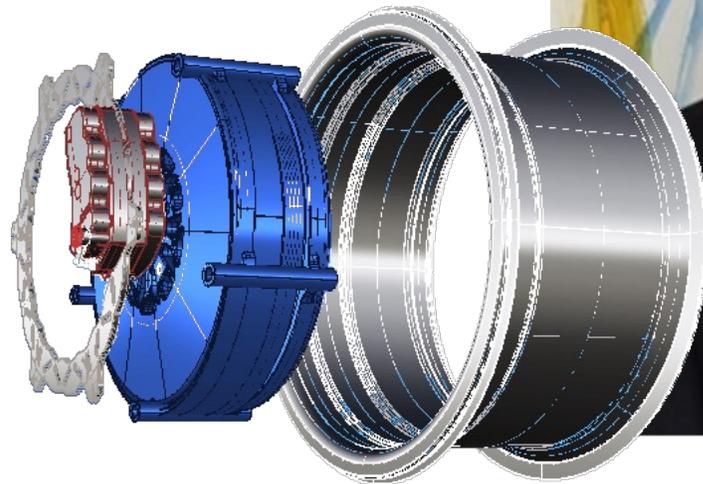
BRIEFING PAPER - OCTOBER 2023







**X** (Energy)<sup>Lab</sup>



\$100B IRA Response

Our economic future hangs in the balance, a new \$100+ billion  
**Australian Renewable Industry Package**  
 will build the industries of the future, create good jobs and secure shared national prosperity.

**Cornerstone funding**  
 A minimum of \$100 billion in new federal investment and spending over ten years



**Overarching strategy**  
 Communities, investors and industry need certainty – plans should be clear, long term and legislated.



**Mid-term target**  
 At least \$300 billion annual clean export revenue by 2035

## Products

Adding value and playing to our comparative advantage.

- Green iron and steel
- Green alumina and aluminium
- Processing and refinement of critical minerals and energy transition metals
- Green ammonia
- Advanced manufacturing including solar and wind componentry, electrolysers, batteries and grid control technology
- End-consumer machines such as heat pumps and home energy management systems, induction BBQs
- Transmission infrastructure including cabling and towers
- Clean energy exports (renewable energy and green hydrogen)
- Zero carbon transport vehicles and fuels
- Expanded domestic recycling and reuse aligned with circular economy principles
- Clean energy education, training and services (including consulting, ICT and engineering)

## Enablers

We can only move fast if the community is on board.

- Free, prior and informed consent from First Nations communities and co-ownership
- Place-based precinct co-development with local communities
- Fair labour standards that guarantee well-paid, safe, secure jobs, with best practice training
- Best practice ESG and improved environmental outcomes linked to accelerated approvals
- Embedded circular economy principles
- Coordination across communities, industry, unions, investors and all levels of government
- Community benefit sharing
- Gender and disability inclusivity
- Resilient, diverse and local supply chains
- Significant programmatic funding for the Net Zero Authority
- Build sufficient firm renewable energy supply

## Policies

Building clean industry and new export markets.

- Financial support including production and investment tax credits, contracts for difference, and public sector procurement
- Revised risk and rate-of-return rules for public investment vehicles, to fill project finance gaps
- Support for research, development and demonstration of net zero tech, including support for local innovation and start-ups
- Establish national critical mineral reserves
- Public ownership or public equity investment in common-use infrastructure
- Expanded/improved renewable energy target & energy market reform strategy
- National trade desk and trade negotiation support to increase demand for clean products
- Reformed planning approvals for nature positive projects
- Socialized benefit via community profit sharing and public ownership/equity where appropriate

Endorsed by:



# Supercharge Australia

Supercharge  
Australia  
Innovation  
Challenge



Let's Go!



Luan Atkinson, CEO Renewable Metals