



CEFC Explainer

Decarbonising the heavy transport sector

What role does transport play in the Net Zero Roadmap, and how do Australia's heavy vehicles fit into this picture? We look at the challenges and opportunities for decarbonising the vehicles that power the nation's freight and logistics, and provide examples of how the CEFC is financing the transition.

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Australian Government





The road to net zero for Australia's transport sector

The Net Zero Plan, published by the Australian Government in 2025, sets out how the nation can achieve a fair, orderly and efficient transition to net zero that builds on our strengths and ensures all Australians benefit.

Within this framework, there are six sector plans, including Transport. This plan covers light and heavy road transport, rail, maritime, aviation, and transport infrastructure's embodied emissions.

The CEFC is supporting the goals of the Transport Sector Plan, which touches on many sectors of the net zero economy, including infrastructure, property, energy and the built environment. Electrification of heavy vehicles is a key focus for the CEFC, which has already invested in projects that encourage uptake. Going forward, the CEFC will continue to identify opportunities to decarbonise the trucking fleets that support a large proportion of Australia's freight and logistics routes.

Definition of heavy transport

In Australia, a heavy vehicle is defined under the Heavy Vehicle National Law (HVNL) as any motor vehicle or trailer with a Gross Vehicle Mass (GVM) or Aggregate Trailer Mass (ATM) greater than 4.5 tonnes. This definition applies to trucks, buses, and special-purpose vehicles, ensuring they comply with strict safety, mass, and dimension requirements.



Why does this matter?

20%

of Australia's emissions

Transport accounts for approximately 20 per cent of Australia's emissions. Already the second largest emitting sector, it is expected to become the top sector around the mid-2030s, reflecting faster decarbonisation than stationary energy before agriculture overtakes as the largest sector in the late 2030s¹.

\$865b

in community costs

- Road transport is projected to impose around \$865 billion in community costs through to 2050, driven by air pollution, greenhouse gas emissions, noise and water pollution².
- Most of this burden is attributed to heavy transport (light commercial vehicles and trucks), highlighting freight electrification as a key lever to reduce costs borne by the community.
- Electrifying road transport could save Australia some \$233 billion to \$492 billion in avoided costs, depending on the speed of electric vehicle uptake².



400

deaths in Australia each year

- Switching to electric trucks will also dramatically reduce exhaust-pipe air pollution, which is estimated to be responsible for at least 400 deaths in Australia each year. Old trucks are also more polluting than new trucks: 14 per cent of the Australian fleet is pre-1996, and these trucks emit 60 times the particulate matter of a new truck, and eight times the poisonous nitrogen oxides³.
- Pollution from heavy vehicles is costing Australia more than \$6.2 billion a year in premature deaths and serious medical conditions such as childhood asthma and stroke⁴.



35%

by 2040

Road freight is expected to grow 35 per cent by 2040 compared to 2025 levels¹, resulting in a 10 per cent increase in truck emissions, partially offset by efficiency improvements and gradual electrification.

90%

of diesel is imported

Australia imports most of its diesel, reflecting limited domestic refining capacity and heavy reliance on overseas supply. This exposes freight and supply chains to global fuel market dynamics and international supply disruptions, reinforcing the case for electrification and greater use of domestically generated energy⁵.

1. Australia's emissions projections 2025, Department of Climate Change, Energy, the Environment and Water
2. Deloitte, Australian Conservation Foundation, Local community benefits of Zero Emissions Vehicles in Australia, 2021, p6
3. Grattan Institute, The Grattan truck plan
4. University of Melbourne, Truck emissions cost taxpayers \$6.2 billion in healthcare each year
5. Australian Petroleum Statistics.



What are the challenges?

Transport is a core part of the supply chain of most industries and is crucial to Australia's economy. However, electrifying fleets introduces operational and financial challenges.

1

High upfront cost and range anxiety

- A Battery Electric Truck (BET) model can cost up to twice as much as an equivalent internal combustion engine (ICE) model, as these models currently comprise a very small percentage of the market.
- BETs need very large battery packs to achieve practical ranges and batteries still make up a large share of the truck's cost
- The extra mass of BETs directly eats into the truck's payload capacity, which can reduce the truck's revenue earning potential

2

Charging infrastructure and operational changes

- BETs require new approaches for fleet planning, installation of charging infrastructure and allowing for charging times.
- The heavy vehicle charging network in Australia is currently insufficient, due to factors including:
 - Volume uncertainty (driven by lack of electric fleet uptake)
 - Lack of commitment from fleet owners and users
 - Competition for grid connections /site availability

3

Residual value uncertainty/risk

- The calculation of residual value is challenging due to limited second-hand market data.
- Residual value risk makes BET financing and leasing less accessible and more expensive than necessary¹.
- BETs are newer to the market, hence resale pricing data is scarce, and technological advancements tend to be more significant. Because of this, financial institutions are often concerned that residual value (RV) may suffer significant losses.



Addressing the challenges

The CEFC is working with policymakers, industry and project developers to accelerate the uptake of electric heavy vehicles, while advancing innovative financing models to reduce costs, improve adoption and lower emissions.



Challenge

Residual value risk

Key stakeholders

Fleet operators, charging infrastructure service providers

Financing solutions

Providing residual value support as part of a broader financing solution



Case study

CEFC commits \$70 million to support Volvo's truck electrification

In 2025, the CEFC announced a commitment of \$70 million to Volvo Group to help the company accelerate the electrification of the nation's trucking fleet.

Volvo is one of Australia's biggest vehicle manufacturers and a leading global original equipment manufacturer in the BET market. Its market-leading sustainability ambitions include an aim to have a fossil free supply chain by 2040, for 50 per cent of global sales of new trucks to be electric by 2030, and 100 per cent to be net-zero emission by 2040, enabling its customers to have net zero fleets by 2050. Volvo has also committed to assembling BETs at its local manufacturing facility in Wacol, Queensland (Australia's largest vehicle manufacturing plant).

The CEFC finance, which targets heavy-duty battery electric trucks (HD BETs), aims to make the transition more affordable and includes a 0.5 per cent discounted rate for eligible Volvo customers to lease medium and HD BETs and install electric vehicle charging infrastructure.

The financing will also be used for an innovative residual value support mechanism to reduce operating lease costs and support the future value of HD BETs. This measure is designed to increase the residual value of BETs to bring them in line with equivalent ICE models, helping to reduce the current significant cost premium for BETs for truck operators. Sharing the risk aligns lenders, manufacturers and end customers in building momentum to help decarbonise the transport sector.

Challenge

Upfront costs

Key stakeholders

Fleet operators, fleet owners

Financing solutions

Concessional finance for businesses to invest in BETs and charging infrastructure



Case study

CEFC finances BET purchases for Team Global Express

\$30m

CEFC commitment

In June 2024, the CEFC announced a \$30 million financial commitment to support Team Global Express, one of Australia's largest multi-modal transport and logistics operators, to accelerate the electrification of its truck fleet and help drive down national transport emissions.

Team Global Express is using the low-cost finance to deploy assets, including light, medium and rigid battery electric trucks, courier vans, hybrid refrigerated trucks and mobile charging unit infrastructure across sites in Melbourne, Sydney and Queensland.

The CEFC commitment is part of a broader \$190 million lending facility with commitments from leading Australian and international financiers including Commonwealth Bank Australia, IFM Investors, Daimler Trucks Financial Services, and Income Asset Management.

Team Global Express was recognised in June 2025 as a Sustainability Leader by the Australian Financial Review for this project. The judges recognised the company for its leadership in developing the largest trial of electric trucks in the world.



Challenge

Access to leasing finance

Key stakeholders

OEMs, Fleet financiers, Fleet owners

Financing solutions

Innovative concessional asset financing programs



Case study

CEFC drives EV take-up through asset finance programs

At the small-scale end of the market, the CEFC has been pioneering co-finance programs with commercial banks and fleet financiers for more than a decade, to make hybrids, battery electric vehicles and hybrid electric vehicles more affordable.

Beginning in 2015, the CEFC took an early step in accelerating lower-emissions transport, with a \$50 million transaction with FleetPartners that offered discounted interest rates to fleet customers choosing lower-emissions passenger and light commercial vehicles. Over the following years, this approach was expanded through concessional finance programs with Macquarie Leasing in 2017 and BOQF in 2019, broadening access to plug-in hybrid and electric vehicle fleets.

In 2026, the CEFC reinforced this long-term commitment by announcing up to \$60 million in support through Hyundai Motor Group's finance arm, Hyundai Capital Australia (HCAU), aimed at reducing the upfront cost of electric vehicle ownership. While CEFC asset finance programs were initially targeted at passenger fleet conversion due to the nascency of the heavy fleet market, market participants now seeking to convert or trial heavy electric fleets can also access this concessional financing.



Challenge

Availability of charging infrastructure

Key stakeholders

Fleet operators, charging infrastructure service providers

Financing solutions

Innovative funding structures to support the emerging charging infrastructure sector



Case study

CEFC and ARENA support innovative BET leasing and charging solution

In 2025, the CEFC announced a commitment of up to \$6 million to support Zenobē to purchase 60 BETs, followed by a further \$22 million in 2026 for an additional 148 BETs, in order to lease them to Woolworths for its grocery delivery fleet.

This transaction is part of a broader project for Zenobē, which subsequently launched Australia's first offsite commercial charging hub facility. Located in Mascot, NSW, the facility was developed using \$8.5m of grant funding from ARENA and opened in November 2025.

The hub features 22 DC fast chargers and parking for up to 44 light commercial trucks, powered by 100 per cent renewable energy. It is the first of its kind offsite charging facility in Australia, providing essential infrastructure to accelerate the adoption of electric vehicles for commercial fleets, including the BETs that Zenobē leases to Woolworths. These vehicles are the hub's key customers, leasing around half of the spaces. The remaining capacity is available to other commercial fleets and businesses operating in and around Sydney that require access to reliable charging infrastructure.

The novel BET leasing model and purpose-built charging hub provide a compelling demonstration of how Australia's last-mile delivery sector can fast-track the electrification of heavy-duty vehicles. Zenobē, with financing from CEFC and funding from ARENA, provides an example of an innovative shared infrastructure model with the potential to be adopted by the broader freight and logistics sector.



About the CEFC

The CEFC is Australia's specialist climate investor, helping cut emissions in the race towards net zero by 2050. We invest in the latest technologies to generate, store, manage and transmit clean energy. Our discounted asset finance programs help put more Australians on the path to sustainability, in their homes and on the road. CEFC capital is also backing the net zero transformation of our natural capital, infrastructure, property and resources sectors, while providing critical capital for the emerging climate tech businesses of tomorrow. With access to more than \$33 billion from the Australian Government, the CEFC invests with commercial rigour and is governed by an independent board.

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