

Round One - Demonstration of vehicles and technology

Technology

1. Zenobe Australia Pty Ltd \$295,674
Portable EV charging using second-life batteries for grid constrained areas
Zenobe will supplement power in grid-constrained areas by installing portable devices made of second-life electric vehicle batteries. The project will demonstrate use for second-life batteries and enable peak shaving and seasonal peaks to be managed without installing additional charging infrastructure or renting diesel generators, and to provide power in emergency situations.
2. Thundergrid \$69,000
Universal Load Guard
Thundergrid's dynamic load management (DLM) system currently works on Etrek chargers for groups of AC chargers. This project is to extend the capability to any third-party DC or AC chargers with a universal controller. This will enable DLM at any site and type of charger, allowing clients to operate within their current power capability and avoid expensive transformer and power infrastructure upgrades to operate chargers.
3. Power Trip \$102,000
Telematics-based optimisation, engagement, and booking solution for EV fleets
Power Trip in partnership with Direct Track will develop and market software to help fleets encourage EV uptake. This includes a collaborative pool booking solution that collects real time data from electric vehicles, provides EV trip planning, promotes the sharing of charging stations between businesses, and uses gamification and rewards to drive EV uptake among staff. The solution uses weather, map, charging station and vehicle data to predict energy consumption and optimise charging stops as well as live battery and diagnostic data from the vehicle. This will provide a more user friendly and informed experience for drivers and fleet managers.
4. IntDevice Ltd \$350,000
Wireless Electric Vehicle Charging
IntDevice Ltd will implement its wireless charging solution for an Auckland Transport electric bus. The bus will charge by parking in an enabled park, avoiding the need to plug in. The bus will charge at the Ti Rakau Drive depot.
5. Kiwi H2 Ltd \$227,000
Decarbonising industrial vehicles in Aotearoa New Zealand today
Kiwi H2 Ltd has exclusively licensed a commercialised dual fuel product from the UK, which converts diesel vehicles to run on 40% hydrogen, aiming to save 40% emissions. This will help fleets decarbonise until commercially available and viable 100% zero emission options are available in NZ. They will convert 2 trucks to use this technology in this project.

Fleet management

6. EROAD Ltd \$302,400
Heavy Vehicle Decarbonization Assessment and Recommendation Project
EROAD Ltd will develop a heavy fleet decarbonisation recommendation tool by using machine learning to draw intelligence from its extensive real-world telematics and driving behaviour data. It will be offered to 3800+ EROAD customers free for the first year, to incentivise early adopters. A free light version allowing manual data input will also be developed, for the wider New Zealand heavy fleet.
7. Custom Fleet \$227,000
E Mobility & Intelligent Charging Demonstration
Custom Fleet Ltd will develop a car share solution with charging management intelligence to optimise charging where capacity is constrained with the aim of minimising cost of charging infrastructure. Outcomes will be reduced driver anxiety, increased vehicle utilisation, and reduced fleet manager workload through the automation of processes.

Off-road

8. MyFleet Rural Ltd \$141,810
Pickman 4 x 4 EV agricultural Off-road UTV launch in New Zealand
MyFleet Rural Ltd will launch four Pickman 4WD, fully electric off-road UTVs throughout NZ at Field Days and A&P Shows, and undertake after show demonstration events along with industry marketing to educate a variety of agricultural users in the benefits of changing to sustainable energy in farm transportation.

Trucks

9. Mainfreight Ltd \$372,641
Battery Swap Electric Intercity Heavy Freight
Mainfreight Ltd will launch the first battery-swap truck for regular inter-city freight transport project, to operate between Auckland and Hamilton. The battery swap gantry and charger will be installed in Hamilton with other infrastructure to be used in Auckland.
10. Fonterra Co-operative Group Ltd \$427,000
eTanker: Fonterra's First Electric Battery Milk Collection Tanker
Fonterra Co-Operative Group Ltd will build and operate NZ's first electric 46T milk tanker with battery-swap technology at the Waitoa Depot, a rural location near Hamilton. This will demonstrate how an electric milk tanker could operate and provide many insights on decarbonisation of heavy transport in rural areas.
11. Firth Industries Ltd \$361,000
Electric Concrete Truck
Firth Industries Ltd will deploy NZ's first electric battery-swap concrete mixer truck, to operate in the Auckland region. This fits with their aim to reduce emissions by 30% by 2030.
12. Phoenix Metal Recyclers NZ Ltd \$274,500
Low emissions fleet for transport in Northland

Phoenix Metal Recyclers NZ Ltd will deploy an electric 34-tonne battery-swap truck (GCM of 49,000k) in Northland to transport recycled metal and demolition waste. The 180kW charger will be made available to other transport companies in the area and their heavy vehicle using customers visiting the site each week.

Buses

13. Bayes Coachlines Ltd \$302,000

Trial of new generation electric bus with lighter environmental footprint

Bayes Coachlines Ltd will build a passenger bus with onboard solar panels providing 5-10% of its power. This bus will weigh 25% less than existing designs, resulting in a greater range as well as lower maintenance costs. The applicant will trial the vehicle for 12 months on existing passenger routes to gain comparability data.