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## 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.

## **Round Two - Adoption of public EV charging infrastructure**

### **Chargers – Journey**

1. ChargeNet NZ Ltd – Napier **\$278,460**

Bringing public ultra-fast (300kW) EV charging to Napier

ChargeNet NZ Ltd will install four 300kW and two 62kW charging ports, offering four high performance charging ports and two fast charging ports in central Napier. The location will be able to charge six vehicles simultaneously, and enables the newest generation of EVs to add 400km of charge in only 20 minutes.

2. ChargeNet NZ Ltd – Whangarei **\$165,172**

Bringing public ultra-fast (300kW) EV charging to Whangārei

ChargeNet NZ Ltd will install four 300kW and two 62kW charging ports located in central Whangārei. The location will be able to charge six vehicles simultaneously, and enables the newest generation of EVs to add 400km of charge in only 20 minutes.

3. ChargeNet NZ Ltd - New Plymouth **\$223,968**

Bringing public ultra-fast (300kW) EV charging to New Plymouth

ChargeNet NZ Ltd will install four 300kW and two 62kW charging ports in central New Plymouth. The location will offer four high performance charging ports and two fast charging ports, able to charge six vehicles simultaneously, and enables the newest generation of EVs to add 400km of charge in only 20 minutes.

4. Z Energy Ltd – Warkworth **\$253,000**

Z Energy North Auckland High Speed Charging

Z Energy (Z) Ltd will install two ABB Terra 184kW rapid DC Chargers able to charge up to four vehicles simultaneously at the Z service station in Warkworth. The Z site is conveniently located on a major travel corridor to the North of Auckland with easy access for EV owners and onsite amenities.

5. ChargeNet NZ Ltd – Auckland **\$197,076**

Bringing public ultra-fast (300kW) EV charging to Auckland CBD

ChargeNet NZ Ltd will install four 300kW and two 62kW charging ports, offering four high performance charging ports and two fast charging ports in Auckland's CBD. The location will be able to charge six vehicles simultaneously, and enables the newest generation of EVs to add 400km of charge in only 20 minutes.

6. Z Energy Ltd – Hautapu **\$366,500**

Z Energy Waikato High Speed Charging

Z Energy (Z) Ltd will install two ABB Terra 184kW rapid DC Chargers at Z Hautapu (Cambridge) for up to 4 vehicles to charge simultaneously. This site provides full onsite amenities with easy access off the new express way.

7. Z Energy Ltd – Kumeu **\$296,000**

Z Energy West Auckland High Speed Charging

Z Energy (Z) Ltd will install two ABB Terra 184kW rapid DC Chargers able to charge up to four vehicles simultaneously at the Z service station in Kumeu. The Z site provides full amenities for EV owners and is located on a major travel corridor to the northwest of Auckland.

8. Z Energy Ltd - Auckland Commercial **\$272,000**

Z Energy Auckland Commercial High Speed Charging

Z Energy (Z) Ltd will install two ABB Terra 184kW rapid DC Chargers at the Z service station at Wiri in Manukau. Up to four vehicles will be able to simultaneously charge, which will help to service the region's growing commercial EV fleet while providing on the go facilities in a to help keep drivers as productive as possible.

9. Z Energy Ltd – Bethlehem **\$247,000**

Z Energy Bay of Plenty High-Speed Charging

Z Energy (Z) Ltd will install a minimum 200kW charger site at the Z service station in Bethlehem, Tauranga. The chargers will serve up to 4 vehicles simultaneously providing easy access for EV owners and onsite amenities.

10. Z Energy Ltd - K Drive Pukete **\$413,500**

Z Energy load managed high speed charging in Hamilton

Z Energy (Z) Ltd will install three dual-head 184kW DC chargers at the Z service stations in Hamilton's K Drive and Pukete in Te Rapa. Both sites are centrally located and will help to service the needs of EV fleets in the Waikato.

## Chargers – Destination

### 11. Thundergrid **\$36,450**

#### 75kW 2-car Public Charger with Dynamic Load Management Trial – Masterton

Thundergrid will install 75kW dual-head charger at Moore Wilson's in Masterton. The modular upgradeable charger will enable robust testing of dynamic load management for fast-charging developed by Thundergrid.

### 12. Meridian Energy Ltd **\$77,311**

#### Expansion of destination-based public DC charging infrastructure across Canterbury

Meridian Energy Ltd will install two 50kW chargers in Canterbury at Woodend and Oxford, close to main roads and amenities. Meridian will also install two 22kW AC chargers at their own cost. The project is part of Meridian's nationwide charging network - Zero.

### 13. Jump Charging Ltd **\$174,963**

#### AgriTech Business Park EV Fast Charging Hub

Jump Charging in conjunction with Agritech Group will install a charging hub in the Agritech Business Park in Rakaia (25-lot Business Park), with co-funding for two 150kW high-capacity DC fast charging units each capable of simultaneous vehicle charging from a 300kW pool of power, and at their own cost, an additional twenty-four 22kW chargers as well as six 75kW chargers in future as demand dictates. The site will service demand from Business Park tenants and the growing commercial EV uptake in the Rakaia and wider Canterbury region.