



Tom Nickels, Managing Director of Waste Management NZ



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# Electric trucks big part of the future

Heavy vehicles are also becoming part of the electric future, with two new projects making it happen.

**W**e've all heard of the buzz over electric cars - but electric trucks and buses? They're already on New Zealand roads and more are on the way.

Quiet, efficient, emission-free, cheap to maintain - the benefits of pure electric vehicles (EVs) are compelling and concerns about cost, weight and restricted range are being quickly allayed, says Ken Shirley, CEO of the Road Transport Forum.

"The speed of change is extremely rapid now and it's only going to get quicker," he says. "Until recently it was thought there wasn't an [electric] application for long-haul heavy transport, but the technology is changing fast.

"There's a global trend towards decarbonisation of transport, and New Zealand is in a unique position in terms of renewable energy to lead that," says Shirley.

The Government has set itself a goal of 64,000 EVs humming their way around New Zealand roads by the end of 2021. To speed things along, it has offered a carrot to the EV industry in the form of the Low Emission Vehicles Contestable Fund - providing grants twice a year, totalling up to \$6 million, also until the end of 2021.

In January, Energy and Resources Minister Judith Collins announced 15 projects approved for funding in the first round - from the installation of fast-charging stations, to the addition of EVs to a taxi fleet. But it was, perhaps, the focus on heavy vehicles which attracted most attention as a category not normally considered for electrification.

The iconic NZ coach transport company Transitz was among those named in connection with a unique project. Transitz, in collaboration with Auckland University of Technology (AUT), intends to trial an electric bus, and the charging infrastructure, between campuses on the North Shore, Central City and South Auckland.

It's part of a larger electric bus trial being conducted by the company, says Transitz

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managing director Paul Snelgrove: "We're excited about the future of electric buses. We've been told by a lot of operators that we're dreaming but we don't believe that. Someone has to lead it in New Zealand.

"The buses have great torque, they're quiet and emission-free. We've been looking at technology out of the Netherlands which charges them in 10 minutes, or a three minute fast-charge which tops up the batteries while you're loading passengers."

Snelgrove has done his homework, looking at electric bus producers around the world,

before establishing a partnership with electric train and bus company China Rail. The company is currently building two electric chassis for Transitz. The first chassis arrived recently; the second is due early July.

The bus bodies are being constructed in Tauranga, and the first of the finished vehicles should be on the road by October.

Meanwhile, with more than 200 cars and 800 trucks on the road, landfill and rubbish

collection company Waste Management NZ has much to gain from the electrification of its fleet.

Its application to the Low Emission Vehicles Contestable Fund was also successful - to the tune of \$500,000, earmarked for converting two of its trucks to electric power and establishing a service facility to carry out electric conversions in New Zealand.

The groundwork has already been laid, with Waste Management striking a deal with Netherlands-based electric powertrain and transport company EMOSS to use its technology here.

Waste Management already runs an electric 'box body' truck, which collects food waste from supermarkets. It's taking delivery of two more electric waste collection trucks from EMOSS over the next few months.

Managing director Tom Nickels says each electric truck will save 125 litres of diesel a day; the stop-start nature of a waste collection truck, with some 1200 pick-ups per day, is the perfect use for electric rather than diesel power.

"Each time the truck stops, the braking regenerates energy that is transferred to boost battery reserves."

Nickels says range is not an issue for the trucks either: "Our collection trucks only travel around 140km per day, so there is no concern about their range. They are designed to complete a full day's collection without requiring a recharge. The first truck is achieving this with ease."

In a neat synergy, Waste Management's Redvale landfill produces methane used to fire its small power station, producing 12MW of electricity. That's enough to run a large electrified fleet of trucks and cars.

Down the track, Nickels sees an electric future for the company: "We believe the majority of the Waste Management fleet will be suitable for the application of EV technology."

The service centre for electric conversion is also likely to be made available to other companies to convert their fleets.

For more information, go to [electricvehicles.govt.nz](http://electricvehicles.govt.nz)

Curious about electric vehicles?