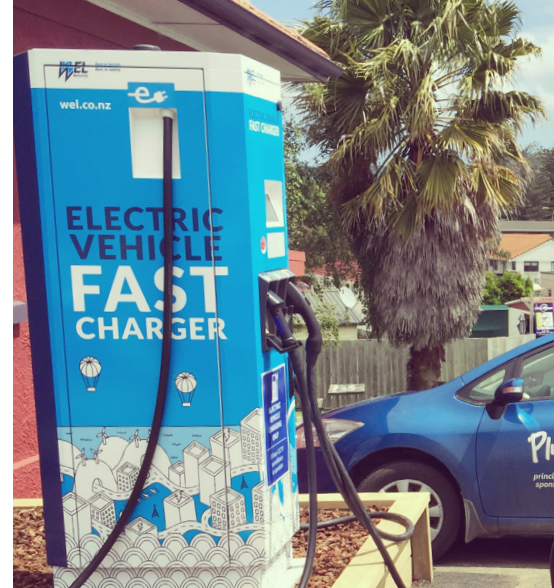


Case Study

Fast charging the Waikato





WEL NETWORKS: FAST CHARGING THE WAIKATO

When the first of WEL Networks' bright blue slim-line electric vehicle fast charger boxes sprouted around the Waikato, many people said they boosted the region's reputation as a centre of growth, opportunity and innovation.

They weren't wrong.

But the free charging stations were much more than that. They were also the start of a WEL Networks' region-wide rollout remedy for "range anxiety". It's a recognised condition which afflicts electric vehicle drivers.

Its symptoms aren't so different from the sweaty palms and kicked-up heart rate of a petrol or diesel vehicle driver when the fuel needle hovers above "empty". But there the comparison ends.

Petrol stations are everywhere. If the worst happens, there's always the gas can and the universally-recognised SOS, the hitchhiker's thumb.

"Fast chargers give electric vehicle drivers comfort," says Paul Blue, general manager, assets management for the Waikato electricity distributor.

"The Waikato is one of the fastest growing regions in New Zealand and we need to provide our communities with innovative energy solutions that will support this growth," he says.

WEL Networks' distinctive blue electric vehicle fast chargers have been installed across the Waikato from Raglan to Hamilton city centre to Te Kauwhata and Blue says their numbers will increase as electric vehicle popularity grows in the Waikato.

The WEL chargers can be found on the international electric network app Plug Share, a free device for electric vehicle owners which provides real-time information on where to find chargers throughout the world. Paul Blue is in no doubt electric vehicles will dominate on Waikato roads sooner rather than later.

"It may not look like they are coming fast, but they are. In 2015 there were 900 vehicles in the country. By mid-2017 there were

5000. By 2030 you won't be able to buy a new Audi, BMW or Mercedes car that has a petrol or diesel engine. In the UK in 2040 you won't be allowed to buy a petrol or diesel vehicle from anyone.

"The arrival of the electric vehicle is not an 'if', it's a 'when'."

As Paul Blue says, in the New Zealand context electric vehicles are not just a great use of a renewable energy, they marry up perfectly with this country's 80 per cent energy source – renewable electricity.

"Electricity and electric vehicles is a really good news story for New Zealand. It means we are no longer dependent to the same level we were on oil producing countries. We are independent of them.

"This is good for the stability of the country. It's good because profits made in New Zealand stay in New Zealand. Electricity companies are predominately owned by New Zealanders."

"Range anxiety" will disappear as car manufacturers improve the capability of cars, he says.

"It's very fast-moving technology which every manufacturer of cars is looking at."

Providing for mass electric vehicle car use is high on the list of new technology-driven challenges facing Waikato community-owned WEL Networks, whose sole shareholder is the WEL Energy Trust.

As the region's sole electricity lines provider, WEL Networks is front-footing the challenges laid down by fast-moving changes in household technology use and demand. It is also meeting the demands of a growth explosion in the Waikato business sector.

Paul Blue anticipates the galloping pace of change will result in



WEL Networks electric vehicle fast chargers can be found at:

**114 Maui Street, Hamilton
Wayside Road, Te Kauwhata
Bow Street, Raglan
Waikato Innovation Park, Ruakura
Caro Street, Hamilton City**

WEL Networks building a much closer, and more active, connection with its nearly 90,000 customers in the near future. In the past, because of the structure of the power industry, Waikato people's contact with the electricity industry has mostly been through electricity retailers.

But the uptake of the electric car, the Waikato community's increasing adoption of electrically-charged batteries - both in cars and within the home - and our growing dependence on electricity provision 24/7 makes it a certainty that WEL Networks will become a household name, he says.

ABOUT WEL NETWORKS

At WEL Networks, we're delivering innovative energy solutions which enables our communities to thrive and keep the lights on 24/7.

We've been serving the Waikato for 100 years, distributing power from the national grid, connecting over 160,000 people to electricity services through 89,000 installation connection points.

Based in Hamilton, we play an essential role in the region's economic and social development by identifying and investing in new technologies that will modernise our network and future-proof our region.

We're excited to be broadening our horizons as we diversify from a traditional lines company into a multi-utility.

This has driven our company's growth strategy and in recent years has seen us exploring not only new ways of ensuring our customers can receive safe and reliable energy, but expanding our commercial interests to include a majority share in local fibre company Ultrafast Fibre Limited, electric vehicle fast charging stations, and energy efficiency projects like smart meters, storage and solar power.

Each year we invest around \$81 million in maintaining our network of power poles, lines, and underground cables stretching across the Waikato keeping our network in a safe and reliable condition. To deliver this programme of work we employ around 240 people with a range of expertise; from Live Line Mechanics, Faults Technicians and Technical Planners, to in-house Health & Safety professionals, Accountants and Human Resource management.



With the WEL Energy Trust our sole shareholder we're proud to be 100% owned by the community we work, live and play in.



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