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EQC 'PROUDLY A MERCEDES'



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EQC 'PROUDLY A MERCEDES'

Whether it stands for Emotional or Electric Quotient, the all-new "smart" EQC is about to arrive here in New Zealand, and Mercedes-Benz are justifiably very excited. "The EQC is a vehicle that we can proudly launch as a true Mercedes," **Horst von Sanden**, CEO of Mercedes-Benz Australia/Pacific told *EVTalk* at the launch event in Melbourne. **"It ticks all the boxes. It's a new drivetrain, it's fully electric but it's also a**

need to 're-learn' driving, you just jump into the EQC and drive. The only thing you're missing is the engine noise and you get used to that pretty quickly." Mercedes-Benz New Zealand general manager **Lance Bennett** says New Zealand would be among the first countries in the world to receive stock of the EQC. "Electric now has a Mercedes. The EQC changes the game in the electric vehicle market, adding a level of luxury

and attention to detail that meets the exacting demands of our customers in every way. with an initial briefing that was succinct and to the point, an introduction to the salient points about the EQC 400, including design, powertrain and suspension - the front axle has steel springs and passive dampers with the electric motor positioned above hub, while the rear has air springs, passive dampers and the electric motor positioned below hub.

EQ is the division of Mercedes-Benz that's been established to guide the company's transition to electric mobility.

It will offer a range of options including electrically boosted combustion engines, plug-in hybrids and fully electric models, with the EQC being New Zealand's first electric Mercedes-Benz production vehicle.

Although the EQC is based on the GLC platform, it shares just 15% of its components with the popular SUV, with much of that being steering and suspension.

The new EV SUV's 4.77m long, 1.88m wide and 1.62m high body has been designed to look modern and aerodynamic but it's also not overtly futuristic. Up front, the black panel grille bears the brand's iconic three-pointed star below a softer more rounded bonnet. Its large multi-beam LED headlights are connected via a near full-width LED light bar, while to the lower corners, side air scoops channel airflow to the EQC's specifically designed halo-ringed 20 inch



full Mercedes."

"What makes it a real Mercedes is that you can drive any other Mercedes-Benz, jump into the EQC and not have to change anything you do, that's really important. This has always been the philosophy within the internal combustion engine range, but we've now transferred that into an electric vehicle. You don't

and attention to detail that meets the exacting demands of our customers in every way.

"We're not the first to market in the electric segment, we simply wanted to be the best. The EQC is a complete, user-friendly solution to future mobility, but it's also a signpost to an exciting rollout of hybrid and all-electric vehicles from the EQ division over the next few years and beyond.

"New Zealanders have shown great enthusiasm as early adopters of electric vehicles, and the arrival of the EQC heralds a maturing of this segment that further prides open the door for the EQ models that will follow."

The Mercedes-Benz EQC 400 4MATIC is priced at \$142,900 (MRRP). It will be on sale and available to view in EQ showrooms from January, with first customer deliveries to begin from early 2020.

The Australasian launch event began at Mercedes-Me store/cafe in Melbourne,

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alloys (or 21-inch option). Aerodynamically, the EQC boasts a 0.28Cd Drag Coefficient that's been optimised with regressive roof tilt towards the rear, a prominent roof spoiler for improved flow and a smooth underbody allowing for unhindered air flow. At the rear, LED lighting and another LED full-width light bar grabs much of the attention, with the tailgate granting access to 500L of seat-up luggage space.

The interior is unquestionably modern Mercedes-Benz but with subtle nods to its electrical evolution. It has leather luxury and exposed stitching throughout. Dual 10.25-inch display screens that are touch, pad and voice controlled and come complete with the latest MBUX iteration.

Those that have been inside any current Mercedes-Benz vehicle will find it all instantly familiar, but one point of particular interest is the "range cloud" that overlays your vehicle's range on to the EQC's navigation screen as a cloud. It's real time, based on your current driving performance.

As expected, the EQC is a front runner in terms of safety and driver's aids. Attention assist, pre-safe plus, pre-safe sound, active parking assist, active blind spot assist, evasive and active steering assist, multibeam LED, active distance assist, active brake assist to name but a few.

Plus, in the new EQC 400's five-star ANCAP safety rating, it scored 96% for adult occupant protection and 92% for child occupant protection. That represents the highest-ever adult occupant score for an electric car and the equal highest-ever child occupant score of any car.

Regenerative braking levels are managed or controlled via steering wheel paddles. Upon start-up the EQC begins in drive with a more natural brake bias. Paddle up to D+ and the EQC offers virtually zero motor braking, D- moderate braking and D - offers full regen.

This new Mercedes-Benz EV is powered by two 150kW electric motors generating a total of 300kW of power and 760Nm of torque. Generally speaking, when you're driving around town, the front motor is the one that's engaged for everyday driving, but if you're asking more of the car in dynamic, both motors are engaged. It comes with an electric drivetrain, direct drive, fixed ratio transmission for

each axle, that offers smooth and linear acceleration and improved efficiency - 0-100km/h is 5.1 seconds.

The 405-volt output, 80kWh (usable) lithium-ion 625kg battery forms part of the EQC's floor, providing a low centre of gravity and comes with an eight-year/160,000km warranty, while a three-year, unlimited-kilometre vehicle warranty applies to all other items, with annual servicing intervals.

Energy consumption for the EQC is rated at 21.4kWh/100km. With a full charge on board, the EQC can travel between top-ups for up to 434km (ADR) or 353km WLTP. Charging 110kW DC/7.4kW AC. Type 2 AC charging 4km/30mins via a domestic socket, CCS DC 220km/30mins via ultra-rapid charge.

So how does it drive?

The first thing you notice when jumping behind the wheel of the EQC is how modern-Mercedes normal it all is. Leather throughout and the expected up-market feel, dual 10.25 inch MBUX interactive screens combined with lavish cockpit comfort. Everything is where you'd expect it to be and well within arm's reach, but the EQC's trim also has several hints towards its electrification status.

The air vents feature copper-wire inlays and there's a silver circuit board surround to the dashboard, a dashboard that features an unusually tactile "rubberlike" finish. The navigation screen comes with a cool new trick too, but I'll get to that soon.

Drive is engaged via Mercedes traditional steering column stalk and aside from the lack of interior engine sound and gear changing, the EQC pulls away into city traffic like any other modern Mercedes SUV.

Provided you don't step down hard on the accelerator and unleash all that instant torque, the EQC is a smooth operator around heavy congestion. Visibility is great all-round and the ride is comfortable. It doesn't take long before you are confident enough to start fiddling with the SUV's EV extras.

First and foremost, the battery regeneration, which is all handled via steering wheel paddles. Upon start-up, Drive mode is engaged and as I said,

this gives a very natural feel to the vehicle. Pull on the right paddle and D+ is engaged, a drive mode that seems to make the EQC free-wheel in some kind of perpetual motion, much like slipping a conventional car into neutral but still being able to accelerate when required. Left paddle engages D-, a mode that gives moderate regenerative braking when you're off the accelerator and D -



which is almost brake-check firm. In all honesty, around the city, D is just fine.

Free of the city and with Dynamic drive engaged, the EQC really ups its game. The steering is well-weighted and the turn-in is sharp. Acceleration is responsive, not terrifyingly quick, but rapid enough to be within GLC AMG 43 level, which is impressive enough.

The suspension is both pot-hole absorbing and 4Matic confident. I was initially unsure of the springs in front, air suspension in the rear set-up, but it seems to work, and work well, offering quite an exhilarating ride when pushed without a glimmer of understeer.

The EQC's navigation map comes with a "Range Cloud" feature. It superimposes a virtual fence over the regular map that shows, based on your real-time driving, what the SUV's current range expectation is. The faster you go, the more power you use, the narrower the cloud's circumference. It even extends out over the Tasman, but we didn't venture out there.

We arrived at the RACV hotel in Torquay with a little under half the battery life available making the WLTP 353km range more pertinent than the brochure claims. But in the EQC's defence, it was being tested quite hard at times.

In their own words, Mercedes may have taken their time in releasing the EQC, but I have to say, it's well worth the wait. ■

BY DAVE MCLEOD



BIGGER BATTERY, MORE POWER IONIQ EV

Hyundai New Zealand has launched its Series II version of the popular Ioniq EV, hybrid and plug-in hybrid - with bigger batteries and more motor power now on offer.

The new model also comes with a stiffer price tag. While the old model with a 28kWh battery started at \$59,990, the new model opens with a 38.3kWh battery is \$65,990 while the full-spec Elite model

is \$71,990.

Hyundai has indicated it was unable to keep the price the same, and may not be able to keep it at this level for long, as the buying power of the NZ dollar continues to drop. While an additional 10kWh for \$6000 could be considered reasonable, in the case of the Elite the model is now just \$3000 cheaper than a Tesla Model 3.

Range has improved a third to 311km.

"The all-electric driving range of 311km is really significant when considering a typical outdoors kiwi lifestyle," Hyundai New Zealand general manager **Andy Sinclair** says. The Ioniq's motor is now more powerful at 100kW, while the battery can be charged at up to 100kW. It should be noted it is air-cooled rather than liquid cooled.

Styling revisions for Ioniq include redesigned front and rear lighting, front grilles, and new alloy wheels. Inside there is a new dashboard, ambient lighting and a new, tablet-style multimedia unit. The larger, 10.25-inch satellite navigation multimedia system on Elite models headlines the equipment upgrades, and incorporates satellite

navigation and Apple CarPlay/Android Auto smartphone connectivity.

Hyundai's extensive Smart Sense system now includes high beam assist and an upgraded driver attention warning system featuring leading vehicle departure alert.

The chassis tuning has been

Hyundai New Zealand has launched its Series II version of the popular Ioniq EV, hybrid and plug-in hybrid - with bigger batteries and more motor power now on offer.

updated, with fine-tuning in Australia to work better with local conditions.

EVtalk has driven the updated Ioniq, alongside the Kona EV and hydrogen Nexo models on an extensive drive in the deep of the South Island.

Check out full coverage of that trip in our cover story for *EVtalk* January 2020. ■

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FARMER AUTOVILLAGE TAKING EV LEADERSHIP ROLE

Originally starting as Bay Nissan, a single franchise employing around 12 people, Farmer Autovillage in Tauranga is now a multi-franchise car dealership taking a leadership role on electric vehicles. Farmer Motor Group managing director **Mike Farmer** says Bay Nissan started in 1991 and won Nissan dealer of the year for the next seven years. It was rebranded to Farmer Autovillage in 2008. **“When we opened the Autovillage in 2008, it became a multi-franchise one-stop shop facility able to provide a vast selection of new and used vehicles on a convenient shopping platform representing 11 brands,” Farmer says.** Farmer took on the role of group managing director in 2004 and later purchased half the company. Previously, he worked in the finance industry in Auckland as the national sales manager, then moved to Tauranga in 2000 to take over a dealer principal position of the Subaru brand. The dealership sold EVs for a significant period of time before EVs truly took off, which he says is what we are seeing in the market at the moment. At that point, the uptake was minimal as the selection was limited – similar to Australia’s EV market. **“We’re enthusiastic about EVs,” Farmer says. “A lot has been driven from what’s been available for supply from our manufacturers.”**

A key factor holding back EV sales is the limited multi-segment selection from a new car standpoint, Farmer says.

“However, with what is planned from our manufacturers over the next three years it will most certainly change the EV buying landscape.”

Farmer says customers buying EVs are exceptionally knowledgeable about the product, having researched them and knowing what they want specifically in the current EV selection. He calls them the “early adopters”.

“The key change will be when somebody wanders into a dealership and them not knowing much about EVs and end up driving away in an EV. This most certainly will occur as the EV segments expand.

“People are wanting EV cars at this point, however, they’re still looking for more options to consider.” Farmer says this is hard with the selection and supply availability, but he says that will change rapidly in the next few years.

“The time will come and it will turn very quickly.”

When talking about the difference between selling internal combustion engine (ICE) cars and EVs, Farmer says the key challenge the industry faces is knowledge.

“Knowledge about how many kiloWatts (kW) per hour, how you charge,

regeneration, real life range etc, giving correct information to the customer is first and foremost the most important factor.

“In terms of sales techniques, the ‘early adopters’ are extremely knowledgeable and know exactly what they want. For the people still unsure what vehicle to purchase, we need to be able to give them the correct information. Which we can do, as all the training has been provided.



“However, with the movement of this technology at this rapid pace, this commitment to training will need to be relentless from the industry.”

Farmer Autovillage is taking an EV leadership stand in the Tauranga/Bay of Plenty area.

It’s installing a 50kW DC charger and

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potentially a 175kW DC charger, with which an Audi e-tron will be charged to 80% in about 22 minutes. The charging project has been a massive investment for the company, at a project cost of over \$400,000 – half provided by an EECA contestable co-funding.

It will be on the Farmer Autovillage site and available 24-hours, due to be completed mid-2020.

Farmer commends Tauranga dealerships that handle pure, used EVs.

“They’re 100% focusing on EVs. I applaud them. However, until we have significant improvement in segment selection, ICE vehicles may have to be part of the stock mix for these dealers,” Farmer says. He believes the shift will come – the question comes down to timing, and when people are comfortable enough to make the change.

It was only eight years ago people would visit a dealership four and a half times on average before they made the purchase. Now, it’s 1.5 times, thanks to the power of the internet making information available.

“The internet is certainly providing information,” Farmer says. “[Dealers] are not showing clients a vast range of different models. People have narrowed it down to a specific segment. But they may be comparing our vehicle with a model that is the same segment in another brand.

“The day we get customers not knowing what they want to buy, when they are choosing between ICE and EV, that’s when we know that the general public are starting to really put EVs on their shopping lists.”

New EVs make up 5% to 7% of new vehicle sales at Farmer Autovillage, but Farmer predicts by 2022 it will be up to 10-15%, and up to 25% in 2025.

“Every single dealership needs to be openminded and accepting of the technology,” Farmer says.

“I think it’s exciting. The motor industry has not seen such significant change in the last 100 years.

“The next 15 years will represent the most significant shift in the history of our industry.

“And if you’re not willing to accept and adapt to that change then this is not the right industry for you.”

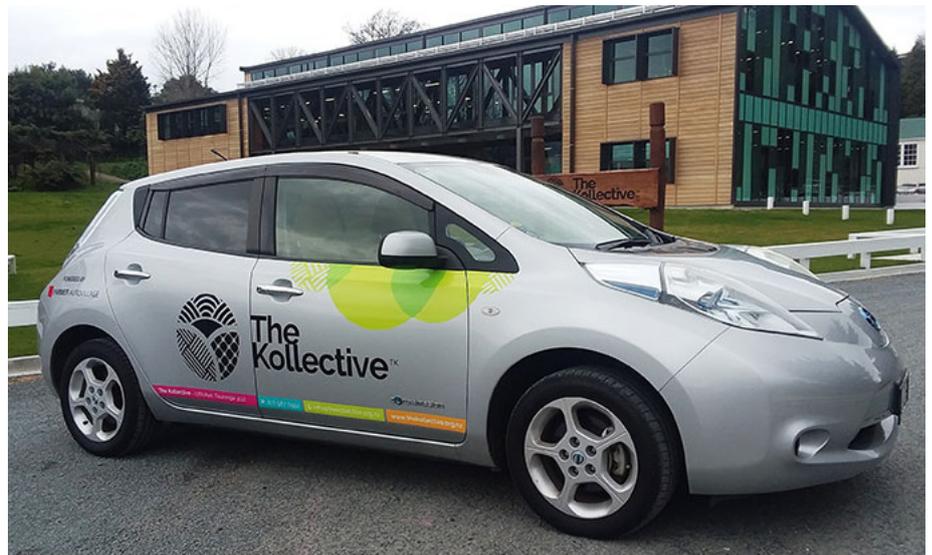
Farmer donated a Nissan Leaf towards The Kollektive, a co-working space dedicated to the success of not-for-profit, social enterprise and charitable

organisations.

General manager **Gordy Lockhart** was searching for an EV in line with their sustainability goals for members to use as a shared transport solution.

Farmer donated a Nissan Leaf for its members, complete with brandings, to help its charitable organisations be mobile.

“It’s a pleasure to be able to support The Kollektive. Their innovative approach to business and business platforms is also what excites us here at Farmer Autovillage,” Farmer says. ■



GLOBAL EV LESSONS FROM CUSTOM FLEET NZ

New Zealand is a great place to test and refine EV-related projects for larger markets.

So says Element Fleet Management president and chief executive officer **Jay Forbes**, who intends taking lessons learned about EVs and related subjects during a two-day visit to Custom Fleet NZ to other countries in the group.

The Element-Arval Global Alliance is the longest standing strategic alliance in the fleet management industry, managing more than three million vehicles in at least 50 countries with Custom Fleet also under its wing.

It's Forbes' first visit to New Zealand – and he's impressed.

From Nova Scotia in Canada, Forbes joined Element in June 2018 and aims to put New Zealand's EV lessons to use in his home country, the US and Mexico.

He rates New Zealand among world leaders in driving sustainable practices and EV uptake. "You guys are big time, amongst those like Norway as leaders on the world stage."

New Zealand's small size, renewable energy, innovation, government encouragement and regulation, plus closeness to Asia where EV battery technology is rapidly developing, are factors in the country's favour for EV uptake and development, Forbes believes.

"Adoption of alternative fuelled vehicles, your 30% committers challenge – you don't know until you tackle these issues. So much more credibility comes in which helps clients' evolution of their fleets to EVs."

Custom Fleet itself made a public commitment to transition 30% of its fleet to EVs by the end of 2019 and has achieved that, with country leader New Zealand, **Michelle Herlihy**, adding it expects to get to 50% by 2021. Herlihy says one of their customers met



Jay Forbes, left, Michelle Herlihy and chief executive officer Aaron Baxter at Custom Fleet in Auckland

their 30% EV target earlier this year and reported that post transition they have saved 100,000 litres of fuel year-on-year.

Even though there's still a lack of suitable EVs in some quarters – like electric utes and four-wheel drive workhorses – Forbes says such a goal encourages others to get on board, especially if they want to be seen as sustainable. Custom Fleet held a customer event while Forbes was in the country to promote their EV+ product (a wing-to-wing EV solution). The event included a panel discussion with representatives from Hyundai, Schneider Electric, ChargeNet NZ and Watercare. Forbes says he also learned much from the panel of OEM, tech enablers, infrastructure and end user representatives.

"Steve West from ChargeNet NZ was talking about 'building it and they will come' for instance.

"Hyundai is interested in coming here with EVs and others are coming to put more research and development in,"

Forbes says pointing to Zephyr Airworks' Cora pilot-less electric vertical take-off and landing aircraft project.

"They're starting to ratchet each other up and it feels close to the tipping point here."

But Forbes says that's "nowhere near" the case in places like Mexico, the US, Canada and even Australia, where much work has still to be done.

"None of them seem willing to make that big commitment up front – but you've already done that here."

Asked if the EV product model being developed for New Zealand is something Element could look to leverage for application in other markets, Forbes responds: "Absolutely".

"I think you are at the cutting edge of EV adoption here. I'm looking forward to taking those lessons to show our colleagues in other countries."

He believes New Zealand could help the world overcome barriers to wider EV adoption, particularly in educating people about the advantages and helping with the political will to foster such a move. ■



Jay Forbes

HYBRID BOATS BRINGING ON-WATER EVOLUTION

We've all heard of hybrid electric cars – now the same revolution is happening on the water.

Slovenian boatbuilder Greenline is producing a range of hybrid launches which also use solar power and can plug in at the jetty – particularly sedan-style launches, to use another car analogy.

Hybrid Boats is the company's New Zealand agent, and owner **Richard Wardenburg** is seeing a transformation in the Kiwi boating fraternity as a result.

Boats are becoming more energy efficient and environmentally friendly, the hybrid boats also saving on fuel.



Richard Wardenburg in the wheelhouse



Solar panels on the Greenline's roof and the Marex boat adjacent

To use his own example, Wardenburg is designing a new solar-powered house at Pauanui into which a boat could be plugged – both to charge up the boat and supply power back to the home.

He's also got two electric scooters and two electric bikes to use as transport when the launch is moored, perhaps to explore one of New Zealand's many islands.

The Greenline boats are quick, quiet and you get no fuel fumes or spills, Wardenburg says.

"You can even have an electric barbecue (no gas bottles required), a full fridge-freezer, microwave oven, a television and entertainment set, air conditioning/heat pump – just like in your home."

The Greenline 39, which won the Boat of the Show launch category at the 2017 Hutchwilco New Zealand Boat Show, can sleep six comfortably, has high visibility with toughened glass all around and is single level with good stability even in rough weather.

"That all helps people avoid seasickness," Wardenburg adds.

And don't say anything to him about it not being a fishing boat!

"It is a serious fishing boat – I've caught plenty off it," he says, adding that for some reason dolphins and orca seem to like being around the boat. "Fish come in towards it because there's no noise."

World-leading production yacht designers J&J Design Studio do all the Greenline designs with less raked bow than most, enabling full use of inside space, and a super displacement low-drag hull.

The hybrid models have a new-generation Volvo 220hp diesel with the 10KW electric motor/generator attached at the back of it – the electric used mainly for cruising at low speeds, manoeuvring and docking.

A lithium-ion battery pack is charged by plugging into a shore socket, using solar power or through the diesel's alternator. Wardenburg's sold about 20 Greenlines in New Zealand and he's tested each model himself.

He says one owner is also buying a Tesla, which perhaps illustrates the move by a growing number of people into a more sustainable and planet-friendly lifestyle.

Hybrid Boats also specialises in yachts and trailer boats with similar features to the hybrids.

Another advantage of hybrids includes reduced servicing and therefore less service costs.

The story behind Greenline is fascinating too, with owner and chief executive officer Vladimir Zinchenko and his wife leaving Russia in 2004 and sailing from Germany to the Caribbean, travelling for seven years doing six



A Torqueeeda electric outboard powers the inflatable boat



Richard Wardenburg on board a Greenline 39 at Auckland's Westhaven marina

Atlantic crossings and visiting about 60 countries before settling in Slovenia and establishing SVP Yachts.

Zinchenko says lessons learned along the way in making a boat convenient, comfortable and safe are now shared with Greenline.

Wardenburg says an all-electric option is coming soon from Greenline which is setting the pace on the water for sustainable craft.

Visit <https://hybridboats.co.nz/> or phone Richard on 0274 926 216 for more information. ■

ALSCO LAUNCHES NZ'S FIRST INTER-CITY EV ROAD FREIGHTER

New Zealand's first long-haul EV road freighter is delivering goods on a 286km daily route for AlSCO NZ.

The truck, a Hino GH 1828 with an electric SEA-Drive 180 power system, was unveiled at Auckland's Eden Park on November 27.

AlSCO provides linen, uniforms, floorcare, hygiene and first aid products, consumables and other rental services to more than 27,000 Kiwi businesses. It is using the heavy EV for transporting such goods between Taupo, Rotorua and Tauranga.

Energy and resources minister

attended the launch ceremony, along with Energy Efficiency and Conservation Authority (EECA) chief executive **Andrew Caseley**. AlSCO NZ received \$50,126 towards the project in January from the low emission vehicles contestable fund administered by EECA.

Speaking at the launch, Woods says the vehicle will be closely monitored as a point of reference so other companies can see electric vehicles can make a good business case.

"This will test the performance of EV technology in the freight sector," Woods says.

Shaw says the transition to



provides a classic example. AlSCO Group general manager **Mark Roberts** says the company is really proud to be a "groundbreaker" in the industry by launching the EV truck.

The company is out to prove that an electric freight vehicle can make sense financially as a solid business case while also providing the environmental benefits, he says.

"The transport industry and wider business will be most interested in the comparative capex and opex figures of a heavy EV compared to a diesel. "By adapting the build, and our operational model slightly, we are looking to demonstrate that the new EV technology is financially viable. That it is potentially a game-changer. It is an exciting step for AlSCO,

and for the heavy transport industry," Roberts says.

The vehicle weighs up to 22.5 tonnes fully laden, has a 200km range, provides 372kW maximum power and 3500Nm torque and saves an estimated \$49,740 in annual operational costs (no road user charge, halves maintenance and saves 25,000 litres of diesel and 67,610kg of CO2 a year).

AlSCO also advocates how wider business can better support regions by adopting cleaner and more financially viable transport options.

Converting a third of its fleet of 350 vehicles, including 15 diesel freighters, to EVs and eliminating coal as an energy source, are among four key sustainability goals AlSCO NZ has through to 2030. ■



Megan Woods, climate change minister **James Shaw**, Taupo mayor **David Trewavas** and other representatives

a more climate constrained world will be one of the greatest drivers of innovation and the EV freighter launch

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ELECTRIC ISLAND WAIHEKE - ONE YEAR ON

Cyril Wright had probably one of the first EVs on Waiheke Island, which has the goal of becoming all-electric by 2030.

And his Polaris off-road EV is a little different from the mainly Nissan Leaf EVs permeating the island off Auckland.

He's using it on a subdivision to cart tools, fuel and materials across the site mainly to service fossil - fuelled machinery, and recently had the Polaris' eight lead acid batteries replaced with three new lithium ones to gain more range and performance.

"It goes well and runs most of the day now before needing recharging," Wright says, adding he can plug it in at home. Previously, he was lucky to get a couple of hours from a single charge.

Wright's interested in getting an electric motorcycle as well.

Polaris Commercial agent **Max Lyness**, an EV specialist with SG Equipment, helped Wright with his upgrade and provides Polaris Ranger EVs to clients and works with transitioning diesel forklifts to Yale electric forklifts.

He once worked with Yamaha selling electric golf carts in New Zealand and he has been investigating Polaris GEM two to six-seater shuttles and carriers.

Lyness hopes to introduce French Goupil G4 compact electric utility vehicles to the island and elsewhere in New Zealand.

He is working with agencies over regulations allowing such EVs, the Goupil G4 having a modular chassis concept providing for customisation such as roll-up door vans, refrigerated vans, rubbish/recycling collection, a fixed or tilt deck and more.

The EV can carry up to 1226kg, suits stop and go applications and can house several battery capacities with a range



Waiheke Five-O EV taxis at the ferry terminal

of up to 130km depending on customer requirements.

Meanwhile, the Waiheke Golf Club has introduced an electric mower, adding to the island's growing EV list, with the Clean Green Lawnmowing Company also setting up on the island.

The island had 42 EVs when **Christina Bu** of the Norwegian Electric Vehicle Association launched the Electric Island Waiheke project.

In just one year, the number of EVs has trebled to more than 120, possibly nearer 160 with many Waiheke EVs domiciled on the island but registered elsewhere. Since July, Electric Island Waiheke has had more than 125 Waiheke residents, families and companies try an EV thanks to Auckland dealership GVI Electric, which has loaned Waiheke four EVs.

Multiple EVs have been sold as a result, with many other Waiheke residents planning to switch when their cars come up for replacement.

Dozens of residents now get around the island on electric bikes and e-scooters too.

Progress on other fronts include three of the island's taxi companies running EVs, Waiheke's new bus fleet switching to EVs, the Waiheke Health Trust aiming to replace its four vehicles with EVs starting with the first one pre-Christmas, and Fullers committing to a significant fleet of fast electric ferries. The company is working with **Michael Eaglen** who has set up EV Maritime in partnership with McMullen & Wing with the goal of replacing all Waiheke ferries with an all-electric fleet.

Electric Island Waiheke plans two major events in 2020 - a two-day public EV showpiece (March 14-15), which will feature an attempt on the world record for the number of Nissan Leafs in one place at the one time (on an island) - coupled with an "open home" introduction to the resilience of living with 100% solar power.

On March 16-17 there's a two-day national and international conference on "EVs and



Cyril Wright's Polaris EV



Waiheke Golf Club's electric mower

beyond" organised by *EVtalk* magazine at the Waiheke Island Resort.

With Vector and Energy Efficiency and Conservation Authority support, Electric Island Waiheke is assisting in the deployment of 80 "smart" home EV chargers and eight public fast chargers - the first public chargers on the island - plus a mobile charger for the AA roadside assistance service.

Finally, a charitable trust has been formed under the patronage of **Sir Rob Fenwick** to drive the efforts of the founding group so that momentum is maintained and stepped up in 2020 and beyond.

Footnote: Electric Island Waiheke needs to increase the number of EVs on the island by 50% annually to replace all vehicles with electric models by 2030. This target should be helped by a range of new EVs at lower prices becoming available on the New Zealand market from 2022, including utes and heavy trucks. ■

FIND YOUR NEW EVS HERE!

NEW EV CAR TYPES				
MAKE	MODEL	TYPE	PRICING RRP est.	APPROX RANGE kms
Audi	e-tron	BEV	\$148,500	417 km
BMW	i3	BEV	\$77,200	200 km
	i3s	BEV	\$85,900	200 km
Hyundai	Ioniq	BEV	\$59,990	220 km
	Ioniq Elite	BEV	\$65,990	220 km
	Kona	BEV	\$77,990	400 km
	Kona Elite	BEV	\$83,990	400 km
Jaguar	I-Pace S	BEV	\$144,900	470 km
	I-Pace SE	BEV	\$154,900	470 km
	I-Pace HSE	BEV	\$164,900	470 km
Kia	Niro EX289 (39 kWh)	BEV	\$68,990	289 km
	Niro EX455 (64 kWh)	BEV	\$75,990	455 km
LDV	EV80	BEV	\$80,489	180 km
Nissan	LEAF	BEV	\$59,990	270 km
Renault	Zoe 40 kWh	BEV	\$68,990	300 km
	Kangoo van	BEV	\$74,990	160 km
Tesla	S - Standard Range	BEV	\$129,700	520 km
	S - Long Range	BEV	\$146,500	630 km
	S - Performance	BEV	\$161,200	610 km
	X - Standard Range	BEV	\$139,200	375km
	X - Long Range	BEV	\$156,000	565 km
	X - Performance	BEV	\$170,700	540 km
	3 - Standard Range Plus	BEV	\$73,900	460km
	3 - Performance	BEV	\$94,200	560km
Volkswagen	e-Golf	BEV	\$68,490	220 km
Audi	A3 Sportback e-tron	PHEV	\$69,900	45 km + 600 km
	Q7 e-tron	PHEV	\$158,400	54 km + 800 km
BMW	i3 - Range Extender	PHEV	\$84,500	200 km + 130 km
	i3s - REX	PHEV	\$91,900	200 km + 130 km
	i8	PHEV	\$281,200	37 km + 400 km
	i8 2018 Coupe	PHEV	\$286,200	55 km + 400 km
	i8 2018 Roadster	PHEV	\$309,900	53 km + 400 km
	225xe	PHEV	\$69,800	41 km + 550 km
	330e	PHEV	\$91,600	40 km + 550 km
	530e	PHEV	\$136,400	50 km + 600 km
	740e	PHEV	\$202,700	48 km + 550 km
	X5 xDrive40e	PHEV	\$152,700	30 km + 800 km
Hyundai	Ioniq Plug-in	PHEV	\$53,990	63 km + 1040 km
	Ioniq Plug-in Elite	PHEV	\$59,990	63 km + 1040 km

Kia	Niro	PHEV	\$55,990	55 km + 850 km
Mini	Countryman	PHEV	\$59,900	30km + 500 km
Mitsubishi	Outlander	PHEV	\$55,990	50 km + 500 km
Mercedes Benz	C350 e Sedan	PHEV	\$96,400	31 km + 700 km
	C350 e Estate	PHEV	\$99,400	31 km + 700 km
	E350 e Sedan	PHEV	\$143,500	30 km + 600 km
	GLE500 e	PHEV	\$149,900	30 km + 700 km
	S500 e	PHEV	\$255,000	30 km + 700 km
Porsche	Cayenne S e-hybrid	PHEV	\$177,800	20 km + 750 km
	Panamera Turbo S e-hybrid	PHEV	\$428,400	30 km + 750 km
Toyota	Prius Prime	PHEV	\$48,490	50 km + 1000 km
Volvo	S90 T8	PHEV	\$125,900	34 km + 600 km
	XC90 T8	PHEV	\$134,900	44 km + 600 km
	XC60 T8	PHEV	\$94,900	40 km + 600 km

BEV - Battery Electric Vehicle
PHEV - Plug-in Hybrid Electric Vehicle

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USED EV CAR TYPES				
MAKE	MODEL	TYPE	PRICING RRP EST.	APPROX RANGE KMS
BMW	i3 - 22 kWh	BEV	\$35k - \$45k	120 km
	i3 - 33 kWh	BEV	\$52k - \$80k	200 km
Hyundai	Ioniq	BEV	\$47k - \$55k	220 km
	Ioniq Elite	BEV	\$57k - \$66k	220 km
	Kona	BEV	\$74k	400 km
Kia	Soul EV	BEV	\$30k	150 km
Mercedes Benz	B250 e	BEV	\$44k - \$47k	140 km
Mitsubishi	i-Miev	BEV	\$11k - \$14k	100 km
	B-Miev Van	BEV	\$16k	100 km
Nissan	LEAF Generation 1	BEV	\$9k - \$16k	120 km
	LEAF Gen 2 - 24 kWh	BEV	\$13k - \$34k	135 km
	LEAF Gen 2 - 30 kWh	BEV	\$26k - \$36k	180 km
	LEAF ZE1 - 40 kWh	BEV	\$43k - \$63k	250 km
	e-NV200 - 24 kWh	BEV	\$27k	140 km
	e-NV200 - 40 kWh	BEV	\$60k	200 km
Renault	Zoe 40 kWh	BEV	\$37k - \$68k	300 km
	Kangoo ZE Van	BEV	\$42k - \$46k	160 km
Smart	Fortwo	BEV	\$20k	100 km
Tesla	S P85D	BEV	\$95k - \$120k	330 km
	S 90D	BEV	\$125k	420 km
	X 75D	BEV	\$109k	340 km
	X 90D	BEV	\$129k	410 km
	X 100D	BEV	\$149k	480 km
	X P100D	BEV	\$230k	460 km
Volkswagon	e-Golf - 36kWh	BEV	\$63k - \$70k	220 km
Audi	A3 Sportback E-Tron	PHEV	\$41k - \$50k	45 km + 600 km
	Q7 e-tron	PHEV	\$125k	54 km + 800 km
BMW	i3 REX - 22 kWh	PHEV	\$33k - \$50k	120 km + 120 km
	i3 REX - 33 kWh	PHEV	\$50k - \$68k	200 km + 120 km
	225xe	PHEV	\$50k	41 km + 550 km
	330e	PHEV	\$50k - \$76k	37 km + 550 km
	530e	PHEV	\$140k	50 km + 600 km
	X5 xDrive40e	PHEV	\$140k	30 km + 800 km
	i8	PHEV	\$110k - \$140k	37 km + 400 km
Hyundai	Ioniq	PHEV	\$46	63 km + 1040 km

Mercedes Benz	C350 e Sedan	PHEV	\$63k - \$75k	31 km + 700 km
	GLE500	PHEV	\$130k	30 km + 700 km
	E350 e	PHEV	\$120k	30 km + 600 km
	S500 e	PHEV	\$96k	30 km + 700 km
Mini	Countryman Cooper SE	PHEV	\$68k	30km + 500 km
Mitsubishi	Outlander	PHEV	\$27k - \$56k	50 km + 500 km
Porsche	Cayenne S e-hybrid	PHEV	\$129k	20 km + 750 km
Toyota	Plug-in Prius	PHEV	\$17k - \$22k	26 km + 800 km
Volvo	XC60 T8	PHEV	\$115k	40 km + 600 km
	XC90 T8	PHEV	\$115k	44 km + 600 km

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PHEV - Plug-in Hybrid Electric Vehicle

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Wellington

EV City | 03 972 5505
contact@evcity.kiwi

Christchurch

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chrisn@metrochch.co.nz

Christchurch

Auto Court | 03 455 3000
info@autocourt.net.nz

Dunedin

The Electric Motor Vehicle Company
03 218 7130 | 027 515 8799
info@electricmv.co.nz

Invercargill



To watch the video of ArtWeek's Mercury e-bike tour see official Auto Media Group YouTube channel.

THOUSANDS ENGAGE WITH MERCURY'S E-BIKES

Mercury's sell-out Xmas Lights e-bike Tours in Auckland are now in their third year.

The event is a bespoke tour of the city's Christmas hot spots, hosted by a dedicated e-bike guide.

These tours are offered exclusively to Mercury's customers, who are becoming increasingly engaged and interested in electrified transport, the energy company says.

Thousands of customers and others have experienced their first e-bike or e-scooter with Mercury since the company launched its Ride Days in 2016, with many going on to buy an e-bike.

Last year, 67 riders took in the city's Christmas lights, which included the famed Franklin Road and Britomart precinct. "I can't wait to get an e-bike and race up those hills," one customer says.

"I really enjoyed my first e-bike experience, will definitely do this again. Bike access [in the city centre] has made it more accessible. Can't wait

to see more of these types of changes. One day I hope we will be like Oslo where people take bikes into the city, not cars," another says.

ArtWeek – another tour concept – held in Auckland in October, was an opportunity for riders to experience the best of Auckland's art scene by e-bike. Mercury communications head

Craig Dowling joined one of the ArtWeek tours, saying it was "an empowering experience". **"The freedom was really surprising, instead of battling up hills, you take in the surroundings and can really enjoy Auckland's new cycle ways," Dowling says.**

"Having someone take you through the safety requirements was super helpful too. Having clear guidance on how to deal with inner city traffic and having the confidence to navigate the roads and the cycle ways changes the experience from a nervous one to a wonderful one."

This year, more than 900 people have experienced Mercury's e-bikes from a variety of events such as Big Boys Toys (269 e-bike and e-scooter riders), EVworld NZ 2019 (133 e-bike and e-scooter riders), and Auckland's eBike Expo (113 e-bike and e-scooter riders). Mercury brand and activation manager **Sarah Cowan** says e-bike and e-scooter imports increased from 2507 units to 47,306 since Mercury launched its first e-bike



Checking out the Christmas lights at Franklin Road in Auckland

campaign.

"If you look at the number of people who got on an e-bike or e-scooter at this year's Big Boy Toys, you can see how popular they are – everyone wants a go." Cowan says.

"We're keen to promote the benefits of e-transport and that you don't have to invest in an EV to enjoy the benefits, you can do this through e-bikes and e-scooters – and it's super fun.

"This year we had three dedicated Ride Days experiences, and supported 15 events from Ironman New Zealand to Evie [Mercury's converted 1957 Ford Fairlane] at Motat and the Go Green Expo in Auckland, where 202 people got a taste of e-bikes and scooters," Cowan says.

She says telling the story of renewable energy and the wonderful things you can do with it is a key reason why Mercury is an advocate of electrified transport.

"Climate change is front of mind and people need solutions that still fit into their lifestyles and are affordable," Cowan says.

"We have a lot of options and deals for customers looking to reduce their carbon footprint and we're delighted to be able to help customers do this."

Mercury has partnered with selected e-bike retailers to bring customers discounts. Visit <https://www.mercury.co.nz/e-transport/e-bikes/view-the-e-bike-range> for more information and Christmas deals. ■



Enjoying one of Mercury's e-bike tours



Auckland's Lightpath at night

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AUCKLAND'S EBIKE EXPO SHOWS GROWING INTEREST

The second eBike Expo at Auckland's The Cloud waterfront venue has been hailed a success with more than 2500 visitors checking out displays by 21 exhibitors on November 15 and 16.



Greg Woodhouse from Bicycle Junction with cargo e-bikes



Callum Sprosen, left, and Steve Williams at the Shimano shop



Andrew Roy gets set to test ride a Mercury e-bike with Francesca Cole's help



Christian Hoff-Nielsen of Bikes and Barbers and Livall's Sanchit Mittal with an e-cargo bike.

Many were there to test ride and buy electric bikes, one exhibitor saying he'd sold three e-bikes within the first half hour.

Expo organiser Icon Conference and Event Management says great feedback has been received from exhibitors, confirming many sales and already expressing interest to return next year. A "Share the Road Truck Blind Zone" demonstration and some seminars on bike maintenance proved popular, many people clambering aboard a truck to check out potential blind spots and learn about avoiding getting too close to a truck's left side.

Paul and Sue Kleinsman had their Bionic Electric Bikes range on display, including their new City-X mid-drive launched at the show. They were offering \$300 worth of accessories with the \$3299 bike there, a step-through which they say was once considered "a girl's bike" but is now popular with everyone.

Designed in New Zealand, Bionic Electric Bikes is also introducing its Ranger mountain e-bike expected to be on the market here early next year.

Peter Gates shared their stand to display his Obsessive Cycling Disorder bike covers and rack systems, the Matamata Saddlery owner branching successfully into the new field.



Frank Witowski of Hybrid Bikes



Bionic Electric Bikes' Paul Kleinsman with the new City-X mid-drive

Mercury's e-bike stand where people could also test the bikes around a track was a hit, Andrew Roy an early customer looking to get e-bikes for staff transport at his work.

FatBikeShop's Luke Ogier had plenty of interest in his fat-tired e-bikes, especially a tow-along pet carrier like the one he uses to cart around his Jack Russell Pierre de Blanc.

Frank Witowski of Nelson was there with his carbon fibre Hybrid Bikes, Bikes & Barbers and Livall smart helmets teamed up and the Shimano shop offered a variety of products.

Cargo bikes featured in many displays, including Wellington-based Bicycle Junction with Greg Woodhouse showing a variety of them, including the Tern GSD. Pure eBike Clyde, Cool Bikes, Kiwi eCycle, Auckland Transport's bike crew, Hikobike, Boost Bikes, and more were at the e-mobility show.

The expo demonstrated the growing interest in e-bikes and e-mobility generally and is sure to set the pace for the 2020 eBike Expo. ■



'Share the Road' campaign manager Richard Barter shows how e-bike riders need to use care on the left of large trucks

BE A PART OF T-TECH 2020 – SUBMIT YOUR IDEAS



Simon McManus

By **Simon McManus**, executive officer, Intelligent Transport Systems New Zealand Inc

Preparations for New Zealand's Future Transport Conference are under way.

ITS NZ is calling for abstracts. Innovators, local government, universities and industry should submit their ideas for consideration by the T-Tech programme committee.

Abstracts are brief outlines of the paper or presentation you wish to make to those attending the conference.

Maintaining a high quality of programme is key for ITS NZ and therefore we do not include commercial sales promotions. However, if your project, research or innovation is groundbreaking and you are willing to share outputs please do submit as we want to hear from leaders in this space. To have your abstract considered it needs to align with at least one of the conference themes and be both original and informative.

Submissions are to be made via the website www.ITSNZ.org.

Being selected to present on a paper or presentation has rewards. Prizes are given for the best paper and best presentation and you could win \$5000 of travel towards an international transport conference of your choice.

The prizes are part of ITS NZ's commitment to furthering innovation, research and skills development in New Zealand.

Earlybird tickets for the conference in Wellington in May 2020 are expected to go on sale in December.

Visit www.ITSNZ.org for more information.

ITS NZ appoints two new board members

ITS NZ has appointed **Dr Douglas Wilson** and **Dr Helen Fitt** to two newly created director positions for representatives from academia. ITS NZ recognises the value that academia plays in skills development and in producing important research and so universities were encouraged to apply for the roles and both candidates made very strong applications.

Helen Fitt lecturers at Lincoln University, and may be familiar to *EVTalk* readers as she is a fellow in Lincoln University's Centre of Excellence for Sustainable Tourism, which currently has a focus on the use of electric vehicles in tourism. She is a guest lecturer with the university's Advanced Energy and Transport Planning Masters course and was a founding member of the Connected and Autonomous Vehicles working group while at the University of Canterbury. We were very pleased to receive her application as she won best presentation at T-Tech 2019 Conference in Christchurch along with **Angela Curl** (now at Otago University). Her social science focus reflects ITS NZ's broader scope of focus, looking at how future transport solutions can benefit or challenge our society, culture and human behaviour.



Dr Helen Fitt

WHAT'S HAPPENING?

ITSNZ Awards

Entries open soon.
Awards night TBC, February 2020

LOCAL EVENTS

T-Tech 2020

May 4-5, Wellington

INTERNATIONAL EVENTS

May 25 – 29 2020

ITS Asia-Pacific Forum
Brisbane

ITS World Congress 2020

October 4-8, 2020, Los Angeles

Dr Doug Wilson is a senior lecturer in Transportation Engineering in the Department of Civil and Environmental Engineering and a founding member of the Transportation Research Centre (TRC) at the University of Auckland.

Wilson is actively involved in the Intelligent Transport Systems and Transportation engineering community and currently is the director of the University of Auckland Transportation Engineering Laboratories.

Prior to becoming an academic he had more than 15 years' experience working for agencies and private consultancies.

Working with the ITS NZ Board, he aims to assist transport agencies, policy makers and industry to better utilise the skills, expertise and resources of the tertiary sector to help research, develop and trial new ITS technologies. ■

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HYDROGEN FOR TRANSPORT



A Toyota Mirai fuel cell electric vehicle (FCEV)

Australia's chief scientist **Dr Alan Finkel** has released a *National Hydrogen Strategy* spelling out how Australia can embrace and develop clean hydrogen as a fuel.

Aurecon recently contributed to the *Hydrogen for Transport* report for the COAG Energy Council.

The transport sector is one of Australia's largest end users of energy and contributes more than 18% of the country's total greenhouse gas emissions. One of the most exciting prospects for hydrogen is the transport sector. Today, its most common use is as a chemical ingredient.

Hydrogen as a technology has the potential to provide a reduction in greenhouse gas emissions as well as a more reliable fuel supply for the transport sector.

Some advantages of hydrogen powered vehicles when compared to other energy sources include faster refuelling times, and the ability to travel longer distances carrying larger loads before the need to refuel.

Support for a clean hydrogen economy has been a long time coming, and the



Dr Alan Finkel

report highlights that what we need now is for Australia to fast-track hydrogen projects, and governments to have a clear role in supporting this great new industry as it evolves. Support for a hydrogen economy in Australia is only one part of being able to scale-up this new industry. A critical pathway for the implementation of this technology

Some advantages of hydrogen powered vehicles when compared to other energy sources include faster refuelling times, and the ability to travel longer distances carrying larger loads before the need to refuel.

will be the trials, demonstrations and pilots which can bring the "Hydrogen for Transport" vision to life. Aurecon's report highlights the systems thinking and integrated outcomes that are pertinent to hydrogen for the



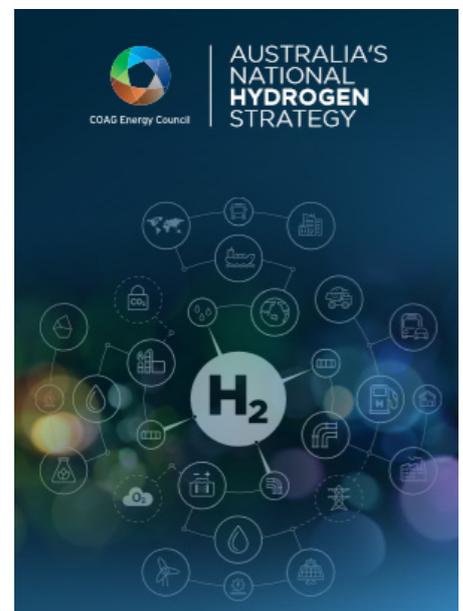
Harriet Floyd is a senior advisor with the Future Energy team at Aurecon

transport opportunity. In progressing any pilot or trial, we encourage investigation of long-term benefits to the broader transport system and growth of the domestic hydrogen economy.

With a fully developed hydrogen economy roadmap, key stakeholders (including government entities, end users, manufacturers, and investors), will have a clearer understanding of the end-to-end value proposition, enabling decision-makers to identify the projects which will facilitate strategic growth for a hydrogen economy in Australia.

I wonder if hydrogen will grab a foothold in New Zealand too?

I'm proud to say that I am part of the Future of Energy today, and contributing to a hydrogen economy of the future. ■



Australia's National Hydrogen Strategy

WE'RE COMMITTING TO EVs

EVtalk checks out how some of the New Zealand companies are doing with their commitment to electrify at least 30% of their vehicle fleets by the end of 2019



ABB Ltd.
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Fuji Xerox
Fujitsu
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Transpower
Turners Auctions
Unison
Vodafone
Waste Management
Watercare
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KEEPING ON COMMITTING TO EVs AND CARBON REDUCTIONS

We've profiled more than 18 organisations which have committed to switching at least 30% of their fleets to EVs – where practical – by the end of this year. **That still leaves close to 15 businesses and agencies to feature, many yet to reach that target mainly because of such things as funding, a lack of suitable EV alternatives like utes and four-wheel drives, and other reasons.**

So *EVtalk* will continue profiling those heading for their target in 2020, when more EV models with good range are expected to start arriving at generally cheaper prices and the chance of incentives looms to encourage them to make the transition. Several organisations have told *EVtalk* they'll be better placed to meet their 30% commitment next year or later. That includes KiwiRail.

"KiwiRail is committed to playing its part in helping New Zealand reach net zero carbon by 2050, as well as our target to reduce carbon emissions by 30% by 2030," group general manager property **Stephanie Campbell** says.

"Although we are unable to proceed with converting 30% of our passenger fleet to EVs mainly due to funding, we are continuing to look at ways we could gradually convert a smaller percentage of the fleet.



Stephanie Campbell

"Meanwhile, we are focusing our attention on areas where we can make far greater impacts," Campbell says.

"Fuel usage by our trains and ferries accounts for the majority of our carbon footprint.

"Our initiatives to reduce energy usage across our rail and shipping operations include the introduction of a Driver Advice System (DAS) on mainline locomotives which

has resulted in a 14% reduction in fuel usage since 2015.

"We have also fitted propeller caps onto the Aratere and upgraded our fuel monitoring system to reduce fuel usage on the Interislander ships."

"Although we are unable to proceed with converting 30% of our passenger fleet to EVs mainly due to funding, we are continuing to look at ways we could gradually convert a smaller percentage of the fleet.

The Aratere is a roll-on roll-off rail and vehicle ferry in service for Interislander. Built in 1998 and lengthened in 2011, it operates four crossings from Wellington to Picton daily. ■

OXYGEN BREATHES LIFE INTO EVS

Sarah Holden is big on sustainability and walks the talk by driving an Audi e-tron for her business advisory service Oxygen Consulting.

As EV costs come down and the bar for sustainability compliance rises, Holden says the business case for transitioning to EV fleets is quickly becoming a “no brainer”.

“So helping organisations to understand their options around EVs is a growing area of work for Oxygen,” she says. Establishing Oxygen in 2018, Holden’s job is helping businesses understand their environmental, social and governance risks. That often involves building a sustainability plan or strategy, establishing targets, project management and managing sustainability initiatives, communicating and reporting sustainability performance, and providing scenario analysis and research on specific sustainability topics.

“We’ve worked with a range of clients in different industries [Westpac, Suncorp, AA Insurance, Spark, Allpress Espresso, Naylor Love, Custom Pak – to name a few].

“I love the variety of clients and industries, as this provides no end of learning and challenge in tailoring a sustainability approach that is right for their business.

“The work is very rewarding because it is very purposeful - you are helping businesses address a bigger picture, environmental and societal challenges that are systemic and far reaching. I feel very proud telling my kids [Amelia 9, William 5] about what I do.”

Holden is seeing more businesses setting ambitious carbon targets – including looking at transitioning their vehicle fleets to EVs.

That’s particularly as business leaders start addressing climate change, increasing consumer interest in sustainability, new rules such as the Zero Carbon Act, sharpening of the Product Stewardship Act 2011 and commitments such as the Climate Leaders Coalition.

Seeing industry peers and businesses signing up to EV commitments encourages others to follow.



Sarah Holden

“There is a level of competitiveness on this front [no-one wants to be lagging], but there is also some wonderful sharing of insights and experiences going on by those who have already led the way in transitioning their fleets to EVs,” Holden says.

Her Audi e-tron supports her business ethic and helps in other ways.

“I’ve had the opportunity to take clients for a test drive to help them better understand how electric vehicles work.” Audi has overcome many concerns people have around EVs such as range, performance and even their appearance, she believes.

“This is a great family vehicle for us. My son, in particular, is obsessed with the amazing technology in the vehicle,” the 41-year-old says.

“The e-tron is loaded with super intel, such as numerous cameras giving you 360 degree views of the car, driver control systems ensuring you stay in lanes, cruise control, google maps, intel on charge stations, voice activated controls, cameras that replace wing mirrors ... and did I mention the Bang and Olufsson sound system? The car practically drives itself and is an absolute pleasure to cruise around in.

“It takes 12 hours to charge up from zero and has a range of around 350km. I have a charger installed at home, which is normally where I charge it up, but I am also a member of ChargeNet for out of town trips.” How did Holden get into EVs and

sustainability?

After gaining a doctorate in environmental and marine science, her career started at the Sustainable Business Network (SBN) about 20 years ago where she worked with businesses on implementing sustainability initiatives.

“One of the programmes I managed at the time was called ‘GreenFleet’, which was focused on helping businesses reduce the carbon intensity of their fleets. “Toyota sponsored this programme and in 2005 invited me to join **Chris Amon** on the Energy Wise Rally, co-driving his Toyota Prius around the North Island for the four-day rally.

“I was initially concerned that a Formula One driver might not be the most appropriate driver for an energy-wise rally. However, as it turned out, the skills that Chris had honed came into great use in gaining the extra efficiencies that we needed to win the rally.

“Things like draughting behind trucks and going with little or no breaks down the Rimutakas [now known as the Remutaka Range, near Wellington] are not skills of the ordinary driver.”

After six years at SBN, Holden moved to sustainability positions at IAG in New Zealand and Australia and then Westpac before setting up her consultancy. She trained under former US vice president **Al Gore’s** Climate Reality Project, now in its 13th year.

Continued on page 23

EVS IN THE WAREHOUSE GROUP'S SUSTAINABILITY DRIVE

The Warehouse Group has hit its target of switching at least 30% of its vehicle fleet to electric by the end of this year.

Procurement manager **Mary Darlow** says they worked through a process to get the right vehicles, the right drivers, the right education plan, the right lease company and the right charging infrastructure. Custom Fleet was selected as the vehicle lease company which had the best fit for purpose, knowledge, service and more. Of 258 vehicles in The Warehouse's fleet, more than 73 of them are now EVs – mostly Hyundai Kona Electrics with about a third Hyundai Ioniqs. About half the fleet (125) comprises delivery vans, and telematics data is being used to establish if these can be switched to electric too.

Continued on page 24



The Warehouse is going electric

Continued from page 22

The Climate Reality Leadership Corps training was held this year in Brisbane, with 800 delegates from across the world attending.

“Over the three days of training, Al Gore and a team of world-class scientists, policy-makers, communicators and experts provided the latest science of climate change and gave delegates the necessary skills to inspire action on

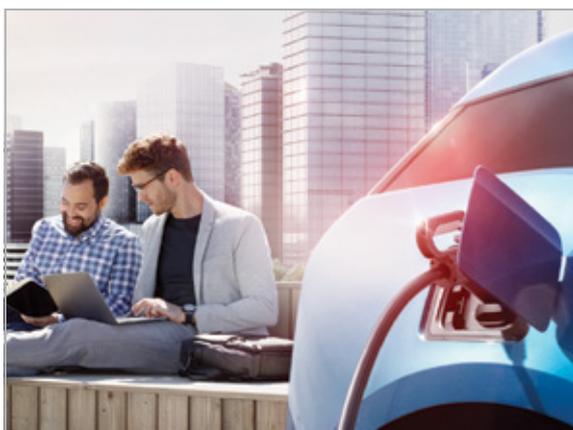
climate change,” Holden says, covering it in her blog: <https://www.oxygen-consulting.co.nz/news-and-blog>.

A long-time Auckland resident, Holden has signed up to join the Greenhithe Volunteer Fire Brigade.

She wanted to be a firefighter when she “grew up” but says there’s also an important link to her sustainability focus. “As climate change sees more frequent

and severe weather events, fires and flooding, there is an increasing demand on emergency services to help communities become more resilient and adaptive, and to be there to support communities when an event happens.

“So it is nice to think that through my work I can be the ambulance at the top of the cliff, and through the fire brigade also be there at the bottom.” ■



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Continued from page 23

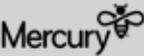
The passenger EVs are for regional managers and deemed tools of the trade for the 12 separate regions. Darlow says range was therefore important in selection, aiming for 400km (the Kona Electric has 449km range and the Ioniq has more than 200km range). Custom Fleet NZ country leader **Michelle Herlihy** says The Warehouse was well prepared for the transition and as a result was able to hit the 30% target within a relatively short period of time. “Hyundai worked closely with Custom Fleet and The Warehouse Group to secure a large number of EVs for delivery. This was crucial as stock is in demand and we needed to have certainty that they could deliver the vehicles to The Warehouse Group before the end of the year,” she says. Most are charged at home, with The Warehouse Group getting AC chargers at its 24 stores, each unit able to charge two EVs at a time. A number of charging providers are supporting The Warehouse and the EVs can also use the ChargeNet

NZ fast charging network. Laser Group undertook electrical testing and charger installations. The Warehouse EV users who charge at home are reimbursed with a smart meter providing data like how many kW used. Custom Fleet regional sales manager **Letitia Still** says they’re happy to help

Custom Fleet NZ country leader Michelle Herlihy says The Warehouse was well prepared for the transition and as a result was able to hit the 30% target within a relatively short period of time.

The Warehouse to deliver the goods sustainably. She explains Custom Fleet’s EV+ project considers what vehicles are fit for purpose and delivers a complete EV ecosystem to

its customers for simplicity and ease. Darlow says The Warehouse hitting its EV target is important from an environmental point of view. “It’s about being more sustainable and doing the right thing.” She says their aim is to lead by example. A Kona EV road trip helped introduce EVs to The Warehouse Group’s people, the EV picked up from Porirua near Wellington and travelling to Christchurch. Driver buy-in was important, so many had the chance to drive an EV during the EV drive day presentations. “Although many were fearful of change, drivers soon got used to the EVs after a few weeks in them,” she says. Information was provided to drivers as well. Darlow also spoke at the EVworld NZ 2019 conference and expo in Auckland along with The Warehouse Group chief sustainability officer **David Benattar**. She says fringe benefit tax (FBT) is an issue for businesses switching to EVs. Challenges faced by The Warehouse Group in meeting its 30% commitment were outlined in *EVtalk* in May. ■

POWER DEALS FOR EV USERS			
Company	Energy Deals	Where	Cost to charge LEAF*
	Plug-in Vehicle Fuel Package 20% discount on your energy bill from 9pm – 7am, available on multiple properties, guaranteed discount for 2 years from signing up to offer, 12% PPD is included in these calculations.	Auckland Wellington Christchurch	\$5.75 \$5.82 \$5.63
	Electric Car Plan: Super-low night rates from 9pm until 7am daily. Available for your entire home’s electricity needs. Rates are fixed for 3 years. Plus get a year’s worth of free EV charging on us! (bill credit of up to \$300)	Auckland Wellington Christchurch	\$4.91 \$4.15 \$2.82
Contact Energy	Everyday Bonus Fixed: Excellent night rates, no fixed term, check if the matching day-time kWh rate will affect your overall bill.	Auckland Wellington Christchurch	\$5.57 \$4.60 \$3.28
Ecotricity	Low Solar: Low Usage plan for EVs & can buy back solar energy, no fixed term	Auckland Wellington Christchurch	\$7.52 \$5.93 \$5.85
Electric Kiwi	One Plan with Hour of Power: Free hour of off-peak power daily – included and calculated to be 2 kWh for charging at 8 amps. Note: this could be different depending on your designated Hour of Power.	Auckland Wellington Christchurch	\$6.82 \$6.86 \$6.71
Flick Electric	Wholesale rates plus their Flick Fee: No fixed term, EV rate in Wellington. Calculated using an average spot price of 5.7c per kWh.	Auckland Wellington Christchurch	\$5.80 # \$5.75 # \$3.46 #
Genesis Energy	Classic plan: Excellent night rates, no fixed term, 10% PPD has been included, check if the matching daytime kWh rate will affect your overall bill.	Auckland Wellington Christchurch	\$6.81 \$4.23 \$3.73
Paua to the People	Cheap As Plan with EV night rates: No fixed term. Calculated using an average spot price of 5.7c per kWh	Wellington	\$4.42 #

*Approximate cost for a full charge of a 24kWh LEAF in the 3 largest centres of NZ.

Please note that rates vary around New Zealand – the above costs were from Mt Wellington in Auckland, Northland in Wellington and Linwood in Christchurch. They can also depend on your meter type & the company you use. Prices vary at the different times of the day eg charging during the day may have higher costs and could increase your overall bill. Flick Electric in Christchurch has higher daytime rates in Winter due to variable pricing from the lines company. The rates we have used above are calculated each month using a low user cost, overnight rates, includes 10% charging loss, prompt payment discounts (PPD) if available and GST, excludes daily charge. Please note that prices were correct at time of publishing and are subject to change. Please contact us if you would like any clarification.

Spot prices can go up and down as they are affected by demand in energy and weather conditions. We have calculated these prices using the average spot price of 5.7c per kWh at night over the last 7 years, however this is no guarantee of current or future prices.



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Dealer principal Geoff Light standing outside the showroom

CONTINENTAL CARS BMW OPENS NEW SHOWROOM

The new multi-million dollar Continental Cars BMW showroom and service centre in Wairau Valley has opened for business on Auckland's North Shore.

The dealership confirms its doors opened at 7.30am on November 25, with an official opening planned in February.

The new four-level showroom said to be one of the largest, boldest luxury multi-



The dealership moved from Takapuna to its new location in Wairau Valley



Dealership interior

level car dealerships in New Zealand. The dealership's new service centre and parts, catering for the Mini brand as well, has opened too.

Plenty of parking is available and the dealership even has its own turning lane in to make access easier.

Five 22kW EV chargers able to charge up to 10 EVs at a time are being installed, and the showroom has BMW i3s on

display with more EVs arriving. "We've thought of everything, from dedicated showrooms for M-Sport and electric vehicles, to making sure there are plenty of parking spaces at the new dealership location, so customers can have a truly hassle-free experience," dealer principal **Geoff Light** says. Media tours are planned, with some work still to be completed. ■

F&P HEALTHCARE WINS SMARTER TRANSPORT AWARD

Helping employees switch to EVs has gained Fisher & Paykel Healthcare the Smarter Transport Award at the 2019 NZI Sustainable Business Network Awards. EVs driven by employees has risen from four to 58 since December 2016, with F&P Healthcare installing 46 charging stations at its East Tamaki campus in Auckland and the company



Andrew Fisher

This smart transport project is part of the company's wider sustainability initiative, with co-funding provided by the Government's low emission vehicle contestable fund administered by the Energy Efficiency and Conservation Authority (EECA).

Other initiatives include minimising air freight, installation of solar panels, shower facilities to encourage cycling, charging plugs for e-bikes, bike maintenance stands and pumps, encouraging public transport use, and providing dedicated premium carpark spaces for employees who car share. Blue Cars, which offers EV rentals, sales and service, including e-scooters and a range of charging solutions, received a commendation in the NZ Transport Agency sponsored award. Finalists included ORIX New Zealand, Meridian Energy,



F&P Healthcare's electric vehicles

Mevo, Tourism Holdings and Yoogo Share – the latter rebranded Zilch. A Sustainability Superstar award went to EcoStock Supplies managing director **Andrew Fisher** who pioneered "food-to-feed" diverting food waste from landfill and is now working on "food-to-fuel" using a planned commercial anaerobic digestion plant that will extract fuel from food waste in partnership with Pioneer Energy. Cityhop founder **Victoria Carter** was a finalist in this category.

The Revolutionising Energy award sponsored by EECA went to AUT University for its energy efficiency initiatives to reduce energy consumption, energy costs, and CO2 emissions which it aims to reduce by 50% by 2025.

It pioneered New Zealand's first electric bus – now the shuttle bus between campuses – leading to an 80% reduction in CO2 emissions per trip compared to a diesel bus. ■

Finalists included ORIX New Zealand, Meridian Energy, Mevo, Tourism Holdings and Yoogo Share – the latter rebranded Zilch.

providing electricity to staff at cost, thanks to backend billing provided by ChargeNet NZ which captures data for monthly reports.



AUT's electric bus

EVS PASS 18,000

Electric vehicle registrations hit 18,186 in November – up 554 on the previous month.

That's more than 2000 past the 16,000 EV target set for the end of this year to achieve 64,000 EVs on our roads by the end of 2021.

But the rate of increase is insufficient to reach the 20,000 milestone by December 31.

Used light pure electrics lead the charge with 9987 registrations up 253 on October's 9734 recorded by the Ministry of Transport.

New light pure electrics come in at 3698 – 145 up on October's 3553. That figure

may well be boosted early next year by more expected Tesla Model 3 deliveries, the Model 3 leading the list in that



Hayden Johnston

category for November with 52 sales. For the plug-in hybrid (PHEV) category, new light PHEVs lead the way with 2844 registrations in November, up 82 on the previous month's 2762.

Used light PHEVs reached 1488 – 68 more than October's 1420 registrations.

Heavy EVs continue their slow climb, up six on October to 169 registrations in November.

Some interesting reports and numbers around EVs and PHEVs are coming from global auto manufacturers, Genuine Vehicle Group managing director **Hayden Johnston** says.

"It's great to see increased development and commitment

from manufacturers to BEV and hydrogen models," he says. "Especially with the stringent European

Union emission standards coming into effect over the next 15 years that will likely see most manufacturers unable to produce an ICE engine that will meet CO2 emission limits.

"The more 'new' BEV, PHEV and hydrogen models that become available the greater the flow down of stock supply to the pre-owned market," Johnston says.

"Even if they are not viable to sell 'NZ new' we will still be able to access and supply the public from other markets where they are available."

Johnston says GVI is enjoying consistent market share in spite of increased pressure from other dealers entering the EV space.

"Prices of EVs have lifted in Japan over the last six weeks and this should keep some of the bottom feeders out of the EV market."

Auckland City Electric Vehicles (ACEV) general manager **Hadley Hargadon** says November was good for business and December EV sales have started strongly too.

"We're seeing good numbers before Christmas," he says. "EVs are coming as Christmas presents for some, perhaps."

Hargadon says ACEV is getting more people now than a year ago, with many friends of EV owners coming in too.

He hopes January will see a continuation of that EV interest and expects further enquiries will also come when new EV models arrive later next year.

Henry Schmidt

of Autolink Cars in Auckland says

EV trading was good in November but is slowing in early December as expected.

Schmidt says there's been talk about hydrogen cars but he doesn't expect hydrogen fuel cell electric vehicles (FCEVs) to take off in New Zealand among the general public.

"We can bring in hydrogen cars like the Toyota Mirai from Japan but there's no hydrogen stations for them here yet."

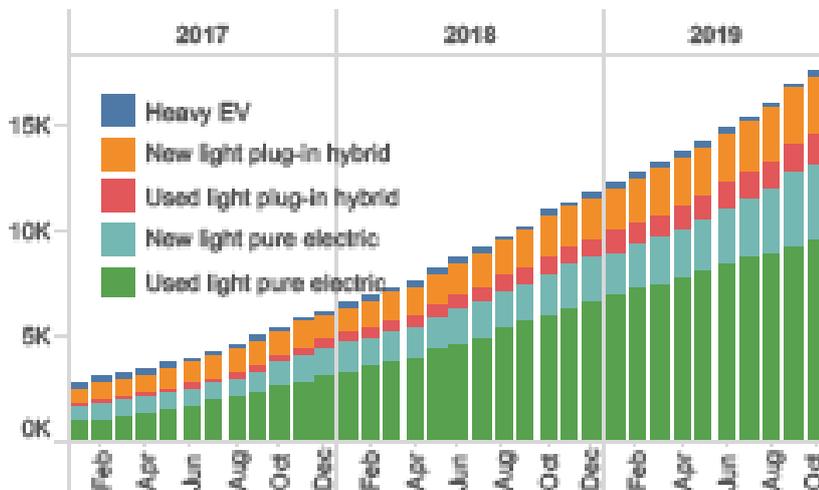


Hadley Hargadon



Henry Schmidt

EV fleet size



	2013	2014	2015	2016	2017	2018	2019
Jan	194	235	595	1,117	2,758	6,630	12,200
Feb	194	246	625	1,153	2,986	6,918	12,725
Mar	202	286	683	1,226	3,193	7,255	13,186
Apr	202	329	716	1,319	3,377	7,632	13,659
May	204	367	745	1,405	3,661	8,200	14,229
Jun	207	391	796	1,599	3,969	8,707	14,867
Jul	208	418	844	1,751	4,258	9,249	15,421
Aug	210	442	873	1,875	4,593	9,759	16,031
Sep	213	467	917	1,989	4,926	10,255	17,026
Oct	221	494	957	2,153	5,361	10,891	17,562
Nov	226	527	1,002	2,374	5,840	11,380	
Dec	230	554	1,056	2,555	6,216	11,752	

MODEL 3 STAYS AHEAD

The Tesla Model 3 continues to dominate the new EV list in November, even though **Model 3** sales are fewer than in the previous two months. It sold 52 units in New Zealand last month, according to sales data from the Motor Industry Association (MIA) and the NZ Transport Agency. That compares with 82 **Model 3** sales in October and 359 in September just after deliveries started. The **Model 3** leads the list of year-to-date (YTD) sales as well, its 553 sales far outpacing any other EVs and plug-in

hybrids (PHEVs). The **Hyundai Kona** is next up on the sales charts with 45 units sold for November and 370 YTD. Further back is the new **Nissan Leaf** which sold 12 in November and 79 YTD after arriving here in August. **Jaguar's I-Pace** and the **Audi e-tron** are almost level pegging at eight sales each for November and 86 and 91 YTD respectively. Lower down the list of November sales but higher in YTD terms are the **Hyundai Ioniq** (145 YTD), **Volkswagen e-Golf** (105 YTD).

The **Tesla Model X** comes in at 83 YTD (five in November, equal to the **Ioniq** and **BMW i**) while the **Kia Niro** has 70 YTD sales and four for November. It's the **Mitsubishi Outlander PHEV** again topping sales in that category, recording 37 for November and 442 YTD. Behind are the **Mini Countryman PHEV** (15 in November, 127 YTD) and the **Toyota Prius** (14 and 120). ■

Continued from page 28

Schmidt believes hydrogen may prove useful for buses and trucks, particularly long-range transport, but he doubts the fuel will become widely accepted for cars.

"Both Japan and California have hydrogen cars and refuelling stations but hydrogen doesn't fly there."



Martin Harwood

He expects EV advances, particularly in batteries and range, will see EVs become more widespread in New Zealand.

Martin Harwood of Harwood Cars in Auckland, says December EV sales have started slowly after a busy November. "November was very good for us," he says. Harwood's not surprised by the December slow down, saying people are thinking about Christmas, school holidays and the weather.

However, he notices people are still looking for EVs. And he expects more of the same in January.

EV prices in Japan have also gone up. "It's hard to buy anything suitable there at the moment," Harwood says. "Cars suitable for New Zealand have become scarce, prices are up but we have had a bit of a win with the exchange rate."

Harwood is seeing growing interest in the Nissan Leaf, especially the 40kWh version. "People are becoming aware of the new shape, possibly because Nissan is selling them here new and they're becoming a popular company car." Little more has been heard about the Government's Clean Car Discount (feebate) proposal, and Harwood doubts anything will happen around that next

year either, particularly with a general election later in 2020.

Harwood says buying a car at Christmas has changed over the years.

"People used to get their Christmas bonus and rush out to buy a car for the holidays," he recalls.

That doesn't happen now, possibly because few get a sizeable Christmas bonus these days.

Trade Me Motors head **Alan Clark** says November saw an 8.6% jump in EV listings over October.

But he notes EV interest has cooled slightly with EV watch list numbers dipping 2.6% on last year.

The Nissan Leaf is the most popular EV on Trade Me. ■



Alan Clark

NEW MAKES AND MODELS 2019

MAKE AND MODEL	NOV '19	TOTAL 2019
ELECTRIC		
TESLA MODEL 3	52	553
HYUNDAI KONA	45	370
NISSAN LEAF	12	79
JAGUAR I-PACE	8	86
AUDI E-TRON	8	91
BMW I	5	45
HYUNDAI IONIQ	5	145
TESLA MODEL X	5	83
KIA NIRO	4	70
HINO GH	1	1
TESLA MODEL S	1	50
VOLKSWAGEN GOLF	1	105
LDV EV80	1	15
FACTORY BUILT SEA ELECTRIC	1	1
MERCEDES-BENZ EQC	1	1
ALEXANDER DENNIS ENVIRO 200	0	5
RENAULT KANGOO	0	5
RENAULT ZOE	0	4
IVECO ACCO	0	2
FACTORY BUILT YUTONG	0	1
FACTORY BUILT EV10	0	1
FUSO ECANTER	0	1
Total (Autobase)	150	1714

PLUG-IN HYBRID

MITSUBISHI OUTLANDER	37	442
MINI COUNTRYMAN	15	127
TOYOTA PRIUS	14	120
HYUNDAI IONIQ	7	59
LAND ROVER RANGE ROVER SPORT	3	20
PORSCHE CAYENNE	3	24
AUDI A3	1	42
BMW 3 SERIES	1	4
BMW X5	1	2
LAND ROVER RANGE ROVER	1	5
VOLVO XC60	1	16
BMW I3	0	24
VOLVO XC90	0	9
KIA NIRO	0	8
BMW 2 SERIES	0	4
PORSCHE PANAMERA	0	4
BMW I	0	2
BMW 5 SERIES	0	1
MERCEDES-BENZ GLE	0	1
MERCEDES-BENZ S-CLASS	0	1
Total (Autobase)	84	915

USED IMPORTS NOVEMBER 2019

MAKE	MODEL	NOV '19	YTD '19
BEV - BATTERY ELECTRIC VEHICLE			
NISSAN	LEAF	238	2789
NISSAN	E-NV200	5	27
BMW	I3	2	23
VOLKSWAGEN	E-GOLF	2	4
MITSUBISHI	I-MIEV	1	9
TESLA	MODEL S	1	8
TESLA	MODEL X	1	1
	OTHER		42
Total		250	2903
PLUG IN HYBRID			
MITSUBISHI	OUTLANDER	41	340
TOYOTA	PRIUS	18	125
BMW	I3	3	61
BMW	330E	2	13
BMW	X5	2	2
VOLKSWAGEN	GOLF	2	13
	OTHER		23
Total		68	577

PLUGGED IN!

Stay connected to the EV community with useful links below.

EECA	NZ government's EV information website https://www.electricvehicles.govt.nz/
Drive Electric	Advocacy group for the EV industry https://driveelectric.org.nz/
EV Association of Aotearoa	EV owners association https://www.evaa.co.nz
Charge Net	Nationwide EV charging network https://charge.net.nz/
Electric Heaven	NZ electric car guide http://www.electriceaven.nz/
NZ EV Podcast	Monthly podcast about EVs https://www.podcasts.nz/nz-ev-podcast/
Flip the Fleet	EV Community data sharing project https://flipthefleet.org/
NZ Electric Bikes Review	Independent electric bike reviews https://electricbikesnz.com/

EV OWNERS FACEBOOK GROUPS – ONLINE CHAT GROUP FOR THE NZ EV COMMUNITY

Nationwide

NZ EV Owners	https://www.facebook.com/groupsNZEVOwners
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Regional

Auckland EV Owners	https://www.facebook.com/groups/291373964545996/
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Waikato EV Owners	https://www.facebook.com/groups/WaikatoEV/
Dunedin EV Group	https://www.facebook.com/groups/403816650002889/
Christchurch EV Group	https://www.facebook.com/groups/ChristchurchEVGroup/
EV Owners - Manawatu	https://www.facebook.com/groups/1847252468838484/
Nelson Tasman EV Owners	https://www.facebook.com/groups/365895557107117/
Northland EV Group	https://www.facebook.com/groups/northlandEVgroup/
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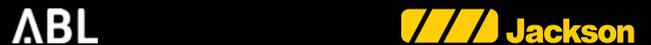


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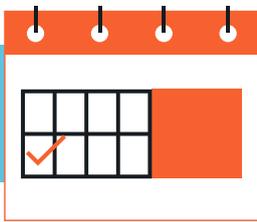
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HIGHLIGHTS OF THE MONTH

Tesla hints 'Baja rally' capability for Cybertruck reveal

Tesla chief executive **Elon Musk** says the company's all-electric pick-up truck will be ready to tackle the Baja Rally.

The Cybertruck has been revealed in California, promising fully adjustable air-suspension, dampers, ride height and a superior approach, breakover and departure angle to rival or better other offerings like the Ford Ranger Raptor.

Tesla says the Cybertruck offers 16 inches (40cm) of ground clearance – better than the Raptor's 28.3cm – and gives 35 degrees of approach, and 28 degrees of departure angle, both also better than the Blue Oval's "off-road warrior".



The Tesla Cybertruck

Ardern and Colbert in EV car-aoke

The *Late Show* host **Stephen Colbert** is airing snippets of his New Zealand visit, which includes being collected from Auckland Airport by prime minister **Jacinda Ardern** in her Hyundai Ioniq EV. **The two even sing a few bars from Queen's Bohemian Rhapsody on the way to Ardern's home where Colbert offers to officiate at Ardern's wedding to partner Clarke Gayford.**

A passer-by recognises Ardern in the EV but doesn't click who Colbert is. At Ardern's home Colbert also sprung a surprise on **Lorde**.

Australian EV road user charge suggested

The increasing number of electric vehicles on Australian roads has brought a call for EV owners to pay a road user charge to ensure funding continues for roads.

But the Electric Vehicle Council says the call in a report from Infrastructure Partnerships Australia should be rejected, as applying an extra tax on EVs would "make Australia a global laughing stock".

"With electric vehicles set to become a dealership mainstay over the next decade, fuel excise revenue will simply fall off a cliff, meaning less money to pay for transport investment," Infrastructure Partnerships Australia says.

Battery Industry Group to handle end-of-life EV batteries

The Battery Industry Group (BIG) launched by Vector on November 28 incorporates more than 80 businesses joining forces to tackle end-of-life issues for lithium-ion batteries.

The cross-industry collaboration will design reuse and recycling solutions for large batteries, usually found in electric vehicles or in stationary energy storage.

Vector has also released a vision and context for the group provided by the *New Energy Futures Paper: Batteries and the Circular Economy* at an event attended by associate environment minister **Eugenie Sage**. The paper is accompanied by a Technical Addendum, in which Vector shares all research and data gathered to-date.

Lithium extracted from NZ geothermal liquid

A breakthrough in extracting lithium from geothermal fluid has come from Taupo company Geo40.

Battery-grade lithium sells for about US\$10,000 (NZ\$15,600) a tonne, Geo40 chief executive John Worth says.

Lithium, normally mined, is used for lithium ion batteries in EVs and will be provided from a \$20 million commercial scale mineral extraction plant being built at Contact Energy's Ohaaki geothermal field south of Rotorua, which Geo40 hails as a world first. ■



Ardern and Colbert having some fun in Ardern's Hyundai Ioniq

EV CHARGING LOCATIONS

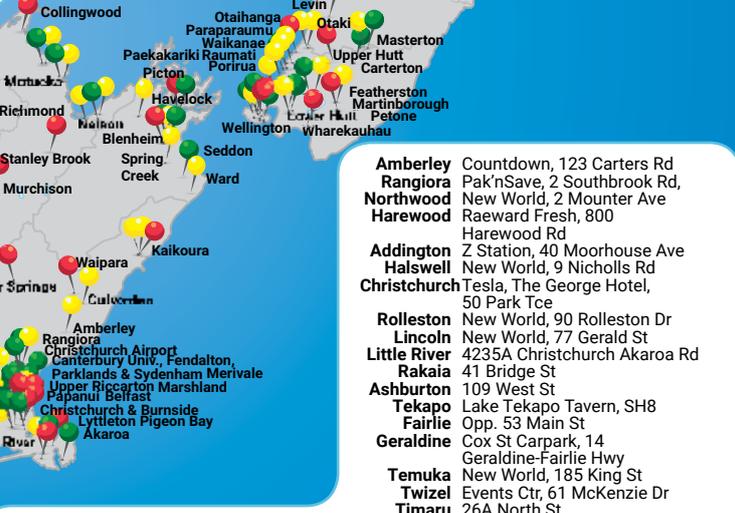
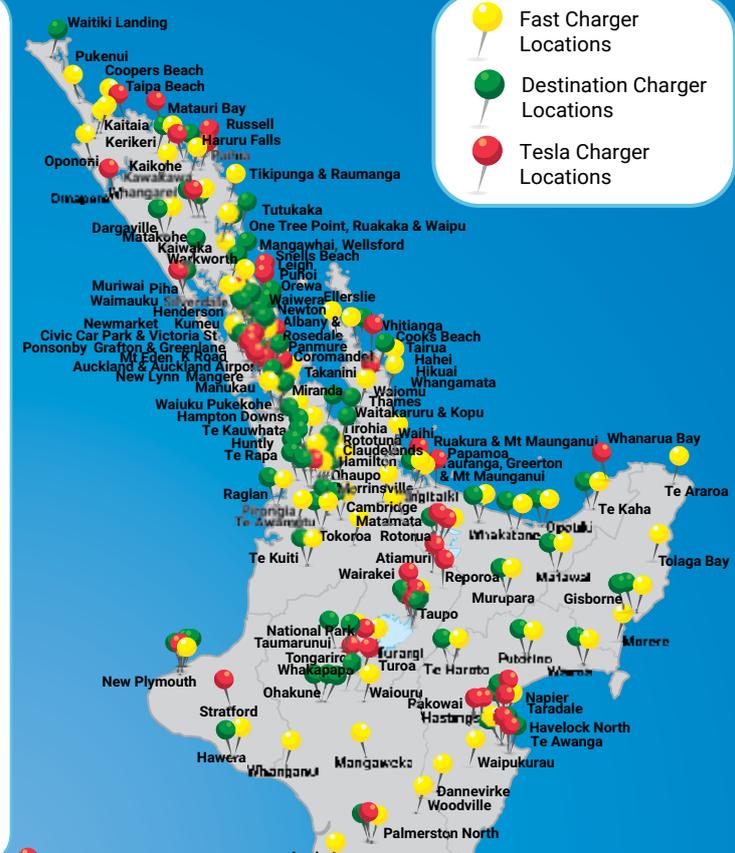
bought to you by **AUTOHUB**™ your leading logistics team for Japanese and UK used EVs
FORWARD TOGETHER

Fast / Super Charger Locations – North Island

- Waitiki Landing** 9049 Far N Rd, Te Hapua 0484
- Pukenui** Houhora Fishing Club, 4126 Far Nth Rd
- Coopers Beach** Four Square, 9 Coopers Dr
- Kaitaia** Te Ahu, 28 South Rd
- Kaitaia** Pak'nSave, 111 North Rd
- Kerikeri** 1 Butler Rd
- Oponohi** Four Square, 29 SH12
- Kaikohu** Library Carpark, 14 Marino Pl
- Kawakawa** 4 State Highway 1
- Tikipunga** Paramount Plaza, 1 Wanaka St
- Whangarei** 11 Alexander St
- Raumanga** McDonalds, 130 Taurua St
- Dargaville** Totara St Park, 113 Totara St
- Kaiwaka** 1 Kaiwaka-Mangawhai Rd
- Warkworth** New World, 6 Percy St
- Warkworth** BP, 67 Auckland Rd (SH1)
- Orewa** New World, 11 Moana Ave
- Silverdale** 17 Hibiscus Coast Hwy
- Albany** The Warehouse, 186 Don McKinnon Dr
- Rosedale** McDonalds, 14 Constellation Dr
- Kumeu** New World, 110 Main Rd
- Henderson** Pak'nSave, 224 Lincoln Rd
- Akld CBD** Vector, 21 Hobson St
- Beach Rd** Z Station, 150 Beach Rd
- K Road** Tesla, 501 Karangahape Rd
- Newmarket** 1 Gillies Ave
- Greenlane** McDonalds, 320 Gt Sth Rd
- Pakuranga** BP, 322 Pakuranga Rd
- Botany Downs** Z Station, 550 Te Irirangi Dr
- Akld Airport** Shopping Ctr, George Bolt Mem. Dr
- Akld Airport** Z Skyway, George Bolt Mem. Dr
- Takanini** 30 Walters Rd
- Takanini** Pak'nSave, 345 Great South Road
- Coromandel** 4 Woolams Rd
- Whitianga** 4 Lee St
- Tairua** Carpark, 6 Tokoroa Rd
- Pukekohe** King Street Carpark, 56 King St
- Pukekohe** Counties Power, 14 Glasgow Rd (Bus hrs)
- Waiuku** Kitchener Rd Carpark
- Thames** 505 Mackay Street
- Whangamata** 100 Hetherington Road
- Hampton Downs** Gate 1, Motorsport Park
- Te Kauwhata** 16 Wayside Rd
- Waihi** New World 35 Kenny St
- Huntly** Countdown, 18 Tumata Mahuta Dr
- Morrinsville** New World, 79/89-97 Thames St
- Te Rapa** WEL Networks, 114 Maui St
- Rototuna** Countdown, 160 Peachgrove Rd
- Matamata** New World, 45 Waharoa Rd
- Hamilton** Tesla, The Base, Te Rapa Rd
- Hamilton** Countdown, 551 Anglesea St
- Claudelands** Countdown, 160 Peachgrove Rd
- Hamilton** Caro St Carpark, 7 Caro St
- Hamilton** Countdown, 4 Bridge St
- Ruakura** Waikato Innov. Pk, 9 Melody Ln
- Raglan** 43 Bow St
- Mt Maunganui** Bayfair, 19 Girven Road
- Mt Maunganui** New World, 1 Tweed St (25 kWh)
- Cambridge** 73 Queen Street
- Pirongia** Four Square, 270 Crozier St
- Te Awamutu** 10 Scout Lane
- Whakatane** i-Site, 30 Quay St
- Opotiki** i-Site, 70 Bridge St

- Te Kaha** Te Kaha Bch Res, 3 Hotel Rd
- Te Araroa** 22 Rata St (25 kWh)
- Rotorua** 1134 Haupapa St
- Tokoroa** New World, 72 Bridge St
- Matawai** 6522 Matawai Rd
- Tolaga Bay** 43 Cook St (25kWh charger)
- Te Kuiti** New World, 39 Rora St
- Murupara** Pine Drive Car Park, Pine Dr
- Taupo** Firestation, 1 Kaimanawa St
- Gisborne** Tesla, 1 Kaimanawa St
- Morere** 21 Gladstone Rd
- Rangitaiki** Hot Pools, 3968 SH2 (25 kWh)
- Turangi** Lodge Cafe, 3281 SH5
- New Plymouth** 1 Pihanga Rd
- Opunake** 66 Courtenay St
- Wairoa** Business Centre, 23 Napier St
- 75 Queen St**
- Putorino** 5466 State Highway 2
- National Park** Four Square, 4354 SH4
- Ohakune** New World, 30 Ayr St
- Taihape** New World, 12 Huia St
- Te Haroto** Mc Vicar Rd, 4237 SH5
- Waiouru** Cnr SH1 & Hassett Dr
- Hawera** Pak'nSave, 54 Princes St
- Napier** 200 Dickens St
- Hastings** 100 Queen St W
- Mangaweka** Papa Cliff Cafe, 2 Koraeui St
- Whanganui** Pak'nSave, 167 Glasgow St
- Waipukurau** 34 Russell St
- Dannevirke** 24B Gordon St
- Woodville** i-SITE, 43 Vogel St
- Palmerston Nth** i-SITE, 126 The Square
- Palmerston Nth** Tesla, 365 Ferguson St
- Levin** New World, 21 Bath St
- Otaki** New World, 155-163 Main Hwy
- Paraparaumu** Kapiti Pak'nSave, 132 Rimu Rd
- Raumati** 15 Raumati Rd, Paraparaumu
- Paekakariki** 7D Wellington Rd Paekakariki
- Masterton** Queen Elizabeth Park, 3 Dixon St
- Porirua** 2 Serlby Pl
- Featherston** SuperValue, 42 Fitzherbert St
- Upper Hutt** 24 Queen St
- Lower Hutt** Dowse Art Museum, 1 Stevens Gr
- Wellington** Grey St Parking
- Petone** Z Station, 60 Hutt Rd
- Te Aro** Z Station, 174 Vivian St
- Te Aro** Barnett St Carpark, 11 Barnett St
- Te Aro** Inglewood Parking, 68 Inglewood Pl

-  Fast Charger Locations
-  Destination Charger Locations
-  Tesla Charger Locations



Fast / Super Charger Locations – South Island

- Takaka** 16 Willow St
- Havelock** Four Square, 68 Main Rd
- Motueka** New World, 271 High St
- Karamea** Four Square, 103 Bridge St
- Nelson** i-SITE, 81 Trafalgar St
- Nelson** New World, 73 Vanguard St
- Richmond** Library, 11 Mcglashen Ave
- Spring Creek** 2226 SH1, Blenheim 7202
- Blenheim** Pak'nSave, Springlands
- Ward** Flaxbourne Cafe, 7326 SH 1
- Westport** New World, 244 Palmerston St
- Reefton** Four Square (25 kWh) 47 Broadway
- Greymouth** 13 Tarapuhi Street
- Kaikoura** 51 West End
- Kaikoura** New World, 124 Beach Road
- Hokitika** New World, 116 Revell St
- Culverden** 27A Mountain View Rd

- Amberley** Countdown, 123 Carters Rd
- Rangiora** Pak'nSave, 2 Southbrook Rd,
- Northwood** New World, 2 Mounter Ave
- Harewood** Reaward Fresh, 800 Harewood Rd
- Addington** Z Station, 40 Moorhouse Ave
- Halswell** New World, 9 Nicholls Rd
- Christchurch** Tesla, The George Hotel, 50 Park Tce
- Rolleston** New World, 90 Rolleston Dr
- Lincoln** New World, 77 Gerald St
- Little River** 4235A Christchurch Akaroa Rd
- Rakaia** 41 Bridge St
- Ashburton** 109 West St
- Tekapo** Lake Tekapo Tavern, SH8
- Fairlie** Opp. 53 Main St
- Geraldine** Cox St Carpark, 14 Geraldine-Fairlie Hwy
- Temuka** New World, 185 King St
- Timaru** Events Ctr, 61 McKenzie Dr
- Timaru** 26A North St
- Omarama** 2 Sutherland Rd
- Omarama** Tesla, Hot Tubs, 29 Omarama Ave
- Kurou** Wynyard St
- Wanaka** 42 Ardmore St
- Queenstown** Tesla, Remarkables Park Town
- Frankton** Pak'nSave, 302 Hawthorn Dr
- Cromwell** i-SITE, 2 The Mall
- Waimate** 125 Queen Street
- Oamaru** Eden St Carpark, 3 Eden St
- Ranfurly** 31 Charlemont Street
- Alexandra** 9 Thompson Street
- Hampden** 33 Lincoln St
- Nth Dunedin** University of Otago, 71 St David St
- Dunedin** Filleul St Carpark, 193 Moray Pl
- Mosgiel** New World, 10 Hartstonge Ave
- Milton** Four Square, 207 Union St
- Roxborough** 22 Jedburgh St
- Lumsden** 13 Tarapuhi Street
- Lawrence** Four Square, 19 Ross Pl
- Winton** New World, 293 Great North Rd
- Gore** New World, 8 Irk St
- Balclutha** 23 Charlotte St
- Invercargill** 116 Esk St



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