

Market Update

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A record finish to a forgettable year.

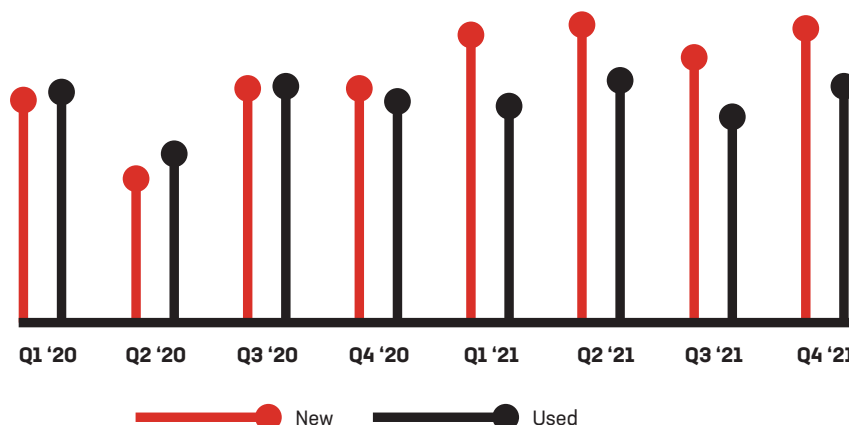
As predicted in our first issue of the Market Update back in July this year, NZ new car registrations have hit record highs with just over 165,000 passenger, LCV's, motor caravans and special vehicles registered in 2021.

New car sales have bounced back in Q4 2021 after the COVID lockdown in Aug/Sept 21 saw a small drop in registrations. New virus waves and variants have impacted hard globally. The production issues around lockdowns, combined with the shortage of semi-conductors and the magnitude of logistical complexities affecting most manufacturers still exist. This combination of pressures on global production and the fractured supply chain will peg back availability and mean that demand globally will outstrip availability until at least the latter stages of 2022, if not into 2023.



The automotive summary of 2021 is record NZ new volumes and record EV growth

NZ Vehicle Registrations
- Source: NZTA





NZ Key Models in 2021:

It's all about Utes and SUVs which is nothing new for NZ. The popularity of Ford's Ranger and its pending new 2022 models will need Toyota to do something big if it wants its Ute crown back:

- Ford Ranger (12,580) and Toyota Hilux (8,431) make up the top two selling vehicles of 2021.
- The SUV's have maintained dominance with Outlander (6,507), Rav4 (6,211), ASX (5,040) and the CX-5 (3,131) in the Top 10.
- Mitsubishi Triton (4,962) at number six and Nissan Navara (3,576) at number 8 keeps utes as the biggest selling model type in the top 10.
- Corolla's rental registrations making up 25% of their sales moves the Toyota passenger flagship to 7th with 4,765 units.
- Tesla has really arrived in the top 10 and we expect them to continue to be a strong player in 2022 despite recall issues. The Tesla Model 3, with orders arriving in bulk in the back half of 2021, takes the number 9 spot with 3,272 units registered in 2021.
- Used imports have come in at 126,000 units vs 122,000 in 2020.

Despite COVID lockdowns in Q3 this year new car registrations have hit record highs for NZ with over 165,000 new cars, motor caravans and light commercial registered in 2021.

Top 20 Makes 2020/2021

MAKE	Q2 '20	Q3 '20	Q4 '20	Q1 '21	Q2 '21	Q3 '21	Q4 '21
Toyota	3,611	5,880	5,976	6,762	6,768	6,941	6,760
Mitsubishi	1,540	2,831	3,191	4,796	5,428	4,815	4,796
Ford	1,618	3,583	3,720	3,812	3,917	4,422	3,810
Kia	1,397	2,255	2,260	3,456	3,125	1,709	3,451
Mazda	1,311	2,367	2,278	3,041	2,562	2,083	3,040
Nissan	959	1,453	1,846	2,096	2,350	1,353	2,096
Suzuki	1,127	1,711	1,617	2,005	2,265	1,944	2,004
Hyundai	1,045	1,786	1,615	1,940	2,048	1,743	1,940
Volkswagen	714	1,219	803	1,519	1,750	1,204	1,519
Honda	565	1,028	555	1,192	959	806	1,192
Mercedes-Benz	530	863	737	760	825	737	760
Isuzu	511	589	682	979	1,204	857	976
Subaru	438	678	557	862	836	542	861
MG	144	360	655	808	783	1,049	808
BMW	284	457	424	525	566	457	525
LDV	195	396	362	625	808	620	625
Audi	277	445	407	486	491	395	486
Ssangyong	224	378	422	455	312	318	455
Land Rover	151	350	271	430	437	186	430
Jeep	100	239	194	399	427	230	398
Others	4,065	4,828	3,508	4,863	4,893	4,926	5,505
New	20,806	33,696	32,080	41,811	42,754	38,338	42,437
Used	23,987	34,005	30,669	31,087	34,404	29,111	34,225



Global EV News

China

China's Ministry of Public Security statistics states that National motor vehicle ownership will reach a total fleet of 395 million in 2021, and new energy vehicles will increase by 59.25% year-on-year.

In 2021, 2.95 million new energy vehicles will be newly registered nationwide, accounting for 11.25% of the total number of newly registered vehicles, an increase of 1.78 million or 151.61% compared with the previous year. In the past five years, the number of newly registered new energy vehicles has grown rapidly from 650,000 in 2017 to 2.95 million in 2021. New-energy vehicles are expected to account for over 30 percent of China's auto market by 2025 and will continue to expand their presence globally throughout 2022 and beyond. Chinese OEMs are also growing fast in the rapidly evolving autonomous driving space. BYD recently announced a partnership with Momentum in a RMB 100 Million investment.

USA

Tesla reports an 87% GROWTH in Global Sales in 2021 and close to one million units. That's before it starts mass production at two new factories in 2022 - near Austin, Texas, and in Berlin, Germany. It does face some substantial recall issues however and how this is resolved might impact sales in 2022.

Ford isn't taking this lightly. Ford's CEO dramatically ramped up plans for its electric F-150 Lightning. It has taken more over 200,000 reservations for its F-150 Lightning and hopes to produce more than 50,000 this year. It is increasing production at a plant near Detroit to build 80,000 in 2023 and increasing that again up to 150,000 in 2024.

Ford has also been selling its popular electric SUV, the Mustang Mach E, for nearly a year and also aims to increase its production to 200,000 units annually by 2023.

Europe

In Norway, The Norwegian Automobile Federation's analysis shows that the last petrol or diesel new car sold will be sometime in April 2022. Norway will achieve 100% electric new vehicle sales almost three years ahead of their governments 2025 target. The Tesla Model 3 tops the sales charts ahead of the Toyota RAV4 PHEV, Volkswagen ID.4, Volvo XC40 and Ford Mustang Mach-E.

The Road To Electrification

"2021 represented the final nudge in New Zealand's Electric Vehicle awakening".



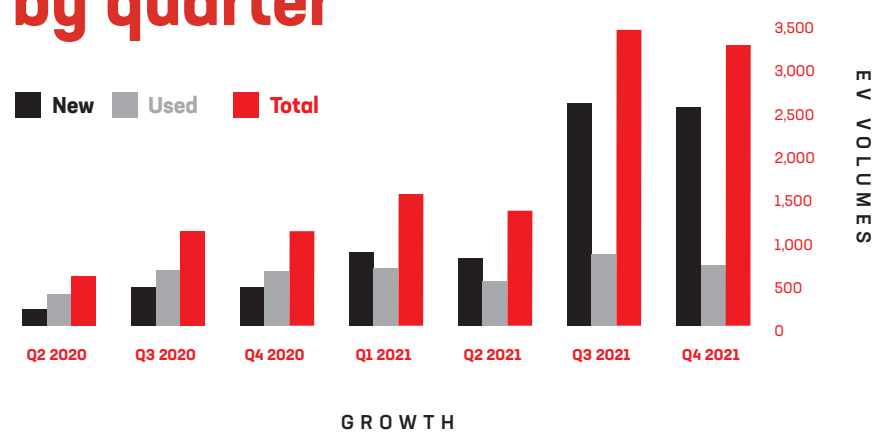
Since the introduction of The Clean Car Discount scheme electric vehicle sales have unsurprisingly rocketed and this was maintained in the last quarter.

Several of the orders taken as part of the initial response to the incentive scheme were only being delivered in Q4 2021, and it is likely there are still some units on order/sitting on boats waiting to arrive in New Zealand through Q1 of 2022.

Shipping delays and COVID induced supply issues will continue to dog the global and New Zealand market and will smooth out some of the spikes that we would have expected to see as part of the dramatic rise in the uptake of electrification.

The NZ market is a tiny percentage of the growing worldwide demand for EV. We are hopeful that the relatively small allocations made to the New Zealand market will be maintained, and that the ongoing EV supply issues predicted through 2022 will be less of an impact for us here in New Zealand.

EV Sales by quarter



The B.I.G issue

You may never buy a petrol car again. Automotive, EV and Battery technology is changing fast. Probably faster than at any time in our relatively brief automotive history.

This means we face two issues.

Firstly that technology will become obsolete quickly, more quickly than ever before (think iPhone 6, launched 09/2014 versus iPhone 13, launched 09/2021), and secondly, that we have to find ways to more efficiently use and recycle old batteries.

Finding a solution could mean huge differences to our wider adoption of older used EVs across our fleet, and to older EVs used values going forwards.

We spoke to the **Battery Information Group** to find out what they are doing in this space.

Q: What is the B.I.G's goal/ purpose?

B.I.G.'s goal is to provide a circular solution to large batteries before they become a problem in Aotearoa. This is quite rare in the history of Aotearoa's management of waste! In recognition of moves to decarbonise our economy and the increasing importance of electrical vehicles and solar technology, B.I.G. was formed by industry to develop a proposed product stewardship scheme for large batteries. The Ministry for the Environment then provided financial support to complement the funding from EECA, the Motor Industry Association and Vector, which allowed B.I.G. to conduct research and identify a product stewardship scheme for NZ.

The proposed product stewardship scheme aims to maintain the value of large batteries in a circular economy for as long as possible and includes maximising second-life use, and the value extracted from them at end of life. The scheme would mean a fee is paid by the importer or producer of large batteries (including batteries already inside vehicles). The fee will cover the cost of the life cycle

of the large battery and means accredited providers who are involved in the collection, transportation, refurbishment, repair and recycling of the product will receive payment.

Regulations for the proposed scheme are currently being consulted on - <https://consult.environment.govt.nz/waste/rps-tyres-and-large-batteries/> until the 16 December.

Q: What future technology changes will enhance battery life, affordability and recycling?

As we increase our electric car fleet in NZ we should see the price of second hand batteries come down, and more repair services pop up, which should also make repair more affordable. Refurbishment is incentivised through the scheme by allowing accredited second-life repurposers, mechanics, installers, hobbyists or small scale refurbishers/repurposers to claim for handling and upgrading the battery. This should also reduce the cost of refurbished batteries and enhance battery life.

Recycling is incentivised through the scheme because end of life collection and treatment of batteries would be at no direct charge to the consumer, thereby providing a free alternative to landfill. Recyclers and reprocessors will also receive payment from the scheme.

The use of a battery tracing platform and battery passport has been investigated by B.I.G.'s Battery Innovation Hub (BIH). This has the potential to extend the useful life of a battery by providing a trusted source of information related to the battery state of health, the chemistry and model information which is crucial for those developing second-

life battery solutions where a battery may have reached the end of its useful life in an EV and could be redeployed for energy storage.

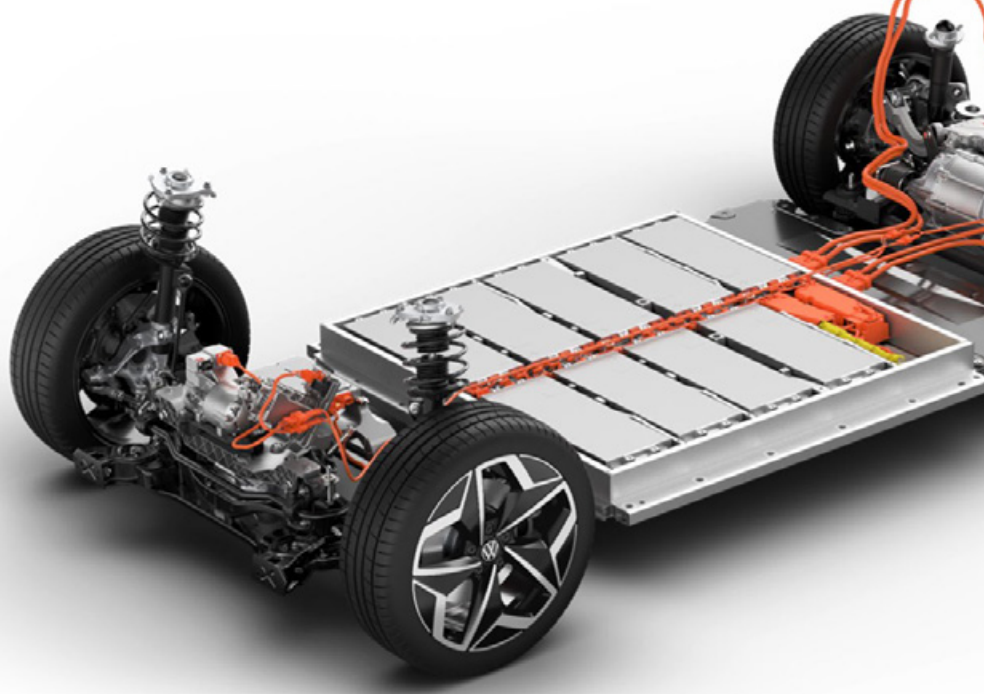
<https://big.org.nz/2021/04/18085/>

Q: The Battery Information Hub is interesting, can you advise some top tips for maximising battery efficiency and life? E.g. What are the best tips for charging a BEV for long battery life?

The GEN LESS site has some great tips for maximising the life of your battery when used in an EV <https://genless.govt.nz/for-everyone/on-the-move/consider-electric-vehicles/range-and-batteries/>.

Q: What are the realistic use timelines and end of life options for NZ's current predominantly Hybrid EV fleet? Do you have the same information for BEVs?

There is limited data on actual time in use of both hybrid and BEV batteries, particularly for newer technology which is still in use. Older Nickel-Metal Hydride hybrid batteries reaching end of life are being recycled to a certain extent by the importers. End of life options are currently limited and small scale, but are being developed.



2022 and Beyond

Supply and Used Values

In 2022 we can expect that depending on supply constraints, and lockdowns, our demand will remain exceptionally high.

Volumes for 2023 NZ new look like over 160K is feasible again depending on supply issues. We might well break the record again as OEMs rush to beat the system.

We expect that supply issues and chip shortages will begin to slowly unravel themselves and used prices to start to come back down in 2023. In tandem with toughening finance restrictions, the overheated ICE used car market looks too hot.



The Clean Car Programme Hits

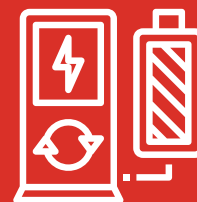
The Clean Car Discount still applies until 31 March 2022. If funding permits, applications will be accepted up until 31 May 2022 for vehicles registered between 1 July 2021 and 31 March 2022.

Things change from 1 April 2022, still subject to legislation being passed, and it is proposed that the Clean Car Discount will provide a range of rebates for new and used imported low-emission and hybrid light vehicles and will charge a fee for high-polluting vehicles based on the CO2 rating of the vehicle. All vehicles below a CO2 rating zero band will be eligible for a rebate and those above the zero band will incur a fee.

This means it will be all guns blazing on Utes and higher Co2 models, with registrations being crammed into Q1 to avoid charges. This should see a storming start to the year providing stock allows.

Sadly, it also means that some OEMs may well reconsider their operations and scale in NZ. That could be a major impact for their staff, vehicle owners, insurers, dealers, finance companies, fleets and so on. It may also speed up the entry of other new Chinese and US EV carmakers. Chinese Brands BYD, ORA and Polestar are already arriving in 2022 and they will make an impact as they establish themselves.

We anticipate much the same as the end of Q4 2021 in Q1 2022, with Ranger, Hilux, Triton and Navarra Utes squeezing a few of the other more traditional higher volume models.



Highly anticipated cars of 2022



Ford Ranger

The all-new Ford Ranger arriving mid 2022



Volkswagen Amarok

Based on the all-new Ford Ranger



Nissan Z

Twin-turbo V6, rear drive, manual box, what's not to like



Cupra Formentor

Golf R running gear in a sports SUV



Volkswagen ID3 GTX

Volkswagen's first EV hot hatch



Kia EV6 GT

A sportier, Kia version of Carsales Car of the Year 2021 (the Hyundai IONIQ5)



INEOS Grenadier

Proper off-road ability and Defender-ish looks with next level engineering

Highly anticipated bikes of 2022

A new wave of adventure tourers is heading our way, and the Savic is a beautiful Australian made electric Café Racer with plans to come to New Zealand in 2023.



Triumph Tiger 1200



Moto Guzzi V100 Mandello



Husqvarna Norden 901



Ducati Multistrada V2



Savic C Series

Future State

The global automotive future is undeniably electric. China leads the way, with new Chinese brands and models continuing to emerge in other markets. Amazon backed electric vehicle maker Rivian and fellow US OEM Lucid are raising billions of USD. Their vehicles aren't even on the road yet!

Just as our vehicles will become increasingly Connected and Autonomous over time

COVID-19 has forced the decision-making process of car buying and related aspects such as accessories and insurance online.

Purchasers are better informed, and analyse and compare more than ever before committing.

Data and AI will play a growing part in influencing our vehicle buying and insurance processes.

We wish you all a happy and safe 2022.

