WINTER 2023

EVWORLD

COVERING THE EV REPAIR MARKET

THE EV CUSTOMER

INDUSTRY VETERAN DARRYL CROFT SHARES HIS EXPERIENCE OF WORKING WITH EV CLIENTS

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AAPEX, SEMA Show

October 31-November 3, 2023

Las Vegas, Nevada

Electric vehicles were top of mind during many discussions at both AAPEX and the SEMA Show in Las Vegas during Automotive Aftermarket Industry Week. One display from Standard Motor Products showed all of the aftermarket components that can be part of an EV system. Joe's Garage featured many training sessions of working and repairing EVs. Speakers such as Todd Campau from S&P Global Mobility explored the impact of EVs today and in the future. A joint report on EV trends and forecasts was put out by MEMA Aftermarket Suppliers and Auto Care Association. And SEMA featured electric and hybrid vehicles, even those converted from gas to hybrid. The DeLorean Motor Company showed off a restyled version of its classic car — the company is set to release The Alpha 5 EV in 2024.

EV WORLD

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KNOWING YOUR AUDIENCE

It often doesn't take long for a bunch of industry professionals around a table to steer their group discussions towards electric vehicles.

A recent example happened during some downtime at an automotive aftermarket event in the fall. After some general shop talk, the conversation topic migrated to EVs.

Those around the table threw out their opinions, ranging from some positive to mostly negative. One person in the circle, a Millennial, said he hated the idea of electric vehicles and will never get one. He cited the usual concerns like battery range but also said he liked the sound of the roar of the engine.

Across the table, someone else, who was in the Baby Boomer age group threw up his hands and exclaimed, "Finally, a young person who doesn't like electric vehicles!"

This would seem to indicate that the belief in electrification is primarily being pushed by the young crowd, looking to upset the established ways of the older generation and their comfortability with combustion engines.

If you believe that to be true — that only young people are buying or are interested in EVs — then you really must read the interview with Darryl Croft in this issue.

The president of the Electric Vehicle Network and co-owner and vice president of an OK Tire shop in Etobicoke, Ontario, pointed out something that would appear to go against popular opinion: Older people are most likely to be the ones walking into dealerships to buy an EV.

Croft pointed out that the majority of people he speaks to when counselling folks on an EV are on the older end of the age spectrum. And it's really simple as to why.

The cost of an EV is still comparable to the luxury category. Older people have more disposable income available than younger people. Older people are also most likely to own a house and have an easy option for installing a charger for their vehicle. They're also more established — they're settled in their home and are unlikely to move, potentially necessitating a new charger installation at a new location. They're mostly empty nesters, which means they're just two people and a smaller EV works for their use-case scenario.

So while many lament the shift to electrification and attribute it to the younger generation's push — yes, generally speaking, Millennials and Generation Zers are more environmentally conscious and in favour of vehicle electrification — the movement is being mostly supported for now by Baby Boomers.

"But the line is, they're done with gas," Croft said of his older clientele, later adding, "And actually, some shoppers have been very specific that they want to do something right and stop polluting more."

It can be a surprise to learn that the older crowd is behind the wheels of EVs. For a service and repair shop, it impacts how you cater to EV customers. Understanding the demographics of the audience you're likely to welcome through your doors can help in providing a tailored and better experience.

Let me know what you think.
You can reach me at
adam@turnkey.media

Adam Malik
Managing Editor, CARS

CANADIANS WANT MORE EV EDUCATION

CANADIANS NEED MORE education around everything related to electric vehicles, a new report suggested. That includes more details about ownership, infrastructure and insurance.

BrokerLink, a property and casualty insurance brokerage, commissioned a survey of Canadians and found that availability of charging infrastructure (89 per cent) and range anxiety (84 per cent) are two of the biggest factors when it comes to switching from an internal combustion engine car to an EV.

It also found that seven in 10 (71 per cent) Canadians are not willing to give up their gas-powered vehicle just yet.

That said, about six in 10 (59 per cent) of Canadians who don't currently have an EV are excited to drive one in the future. And the same number of people reported that they'll consider an EV the next time they go shopping for a new vehicle. Furthermore, nearly two-thirds (64 per cent) of respondents put environmental reasons, including reducing their carbon emissions, at the top of the list as to why they want to own an EV.

MORE CANADIANS OPT FOR BEVS, PHEVS

THE MOVEMENT TO zero-emission vehicles continues to grow. One in eight new vehicle registrations in Canada in the third quarter were battery electric or plug-in hybrids.

S&P Global Mobility's Canadian Automotive Insights for Q3 showed a large jump for BEVs (10.1 per cent) compared to the previous quarter (7.8 per cent) and PHEVs continuing their upward momentum (3.2 per cent compared to 2.7 per cent). S&P considers these two options as ZEVs.

Hybrids, meanwhile, were 11.6 of all new vehicle registrations. Collectively, these alternative options accounted for a quarter of all registrations last quarter. Internal combustion engines made up the rest.

British Columbia had the highest provincial rate of electric vehicle adoption with BEVs accounting for 21.8% of all new registrations.

The results show a rebound of BEVs, which had reached 8.4 per cent in Q4 2022 before dropping to 7.1 per cent in Q1 2023.

"By the end of 2023, ZEVs are projected to account for 13.5 per cent of new registrations in the market. This represents a significant increase from the current level and indicates a strong trend towards the adoption of ZEVs," S&P said.

The group also forecasts that by the end of 2024, ZEVs will account for 18.4 per cent of the market. That would be a 5 per cent increase from the previous year. By 2025, it predicts that ZEVs will account for a quarter of the Canadian market, with a projected market share of 25.3 per cent.

VAST-AUTO LAUNCHES EV VERIFICATION PROGRAM

VAST-AUTO DISTRIBUTION has announced a new program in response to the increasing number of electric vehicles on Canadian roads.

It has launched the Electric Verified by EV Vast Recognition Program to help certify repairs and services to electric and hybrid vehicles. The initiative is a key component of Groupe Del Vasto's global strategy, which includes its brands Auto Value, M 360 Mechanic, OCTO Auto Service Plus, Auto Mecano, and Monsieur Transmission.

Aiming to establish itself and its associated network as front-runners in the burgeoning electric and hybrid vehicle segment, Vast-Auto Distribution is building its strategy on four foundational pillars. These include establishing a purchase and installation service for charging stations, creating a network of 'Electric Verified' repair shops, offering specialized training through Vast-Auto Academy and EV Skills and distributing specialized parts for electric and hybrid vehicles.

EFFECT OF EVS ON LABOUR RATE

THINK ABOUT THE amount of labour that goes into working on an internal combustion engine. If you're not already capturing the value of that labour in your current labour rate, you may be in

for some hurt when electric vehicles start showing up at your door, suggested a shop coach.

If your shop is relying on parts sales too much when it comes to the bottom line, what will you do when EVs start making up more of your business, Bill Haas, president and Owner of Haas Performance Consulting asked during the seminar Shop Production and Payroll Drives Profits at the Midwest Auto Care Alliance Vision Hi-Tech Training and Expo.

Because EVs have far fewer parts than an ICE vehicle, where will your profits come from?

"I want you to think about this: What do you think happens to our industry when we start to work on electric vehicles? It's going to change," Haas observed. "How many parts do you think you're going to sell on an electric car."

Brake sales will be slashed. There will be services related to brakes, but replacements won't be like the industry is used to. The routine oil and filter appointments are gone. There are no spark plugs or ignition coils. "The list goes on and on and on," Haas said.

Parts like ball joints, tie rod ends, control arms and hoses will be in demand. And, of course, tires.

"The problem is this: What you need to start thinking about, what you've got to be prepared for is this is going to be a huge change to the industry," Haas said. "And you're going to sell less parts, which means what? You have to sell more labour. And you have to be smart enough to make sure that you're not just getting paid for what you do. You better get paid for what you know. Because knowing enough to be smart enough to do well in repairing an electric car is going to be a big deal."

GAS STATIONS LOOK TO ADAPT AMID EV SURGE

THE GROWTH IN annual electric and plug-in hybrid electric vehicle sales is forcing a major transition among gas station operators, according to a report.

DBRS Morningstar observed that the consumer shift to EVs is necessitating rapid growth in fast and reliable charging infrastructure. This is pushing gas station operators globally to adapt and future-proof their retail business.

The group expects that as gas station operators make plans to integrate reliable EV charging infrastructure into their service offerings and adapt other aspects of their business, this will mean higher capital investment requirements going forward.

"Furthermore, over the longer term, operators would need to evolve and address challenges around intensifying competition, their changing business and operating model as well as infrastructure concerns, in order to maintain market share, profitability and relatively stable credit risk profiles," DBRS said in its report, *Electric Vehicle Charging: A Slippery Road Ahead for Gas Station Operators*.

"Conversely, the transition also provides a growth opportunity for those gas station operators that address these challenges and execute a successful transition."

Charging infrastructure — that is also reliable — is a key concern for consumers to switch from internal combustion engines to EVs. Gas stations are seen as playing a key role as they are numerous and advantageously located.

But there are challenges for them. Gas station numbers have seen a rapid decline across Europe and North America over the last two decades as intense competition and lower margins hurt operators.

"For gas station operators to remain relevant, they need to adapt and future-proof their business by addressing a number of key challenges, including significant capital investment requirements, intensifying competition, and a changing business and operating model as well as infrastructure concerns," the report said.

THIS EXPERT ISN'T CONCERNED ABOUT GRID STRAIN

ONE OF THE COMMON worries people express over electric vehicles is the strain on the power grid and the potential for frequent blackouts.

Put those concerns to rest, urged Guido Vildozo, senior manager

of Americas light vehicles sales forecasting at S&P Global Mobility.

"We've spoken to power generators at a federal level, provincial level, as well as city level," he said at this year's AIA Canada National Conference. "And what the power generators are telling us is, 'We just received a $80 billion cheque from the government to double their infrastructure. And by the way, we can jack up prices, too, along the way. So we're very happy to do this. And we will be able to do this because we're going to cash in on this opportunity."

He admitted he, too, was concerned about infrastructure. But he pointed out the City of Toronto as an example of preparing for what's coming. It's looking to triple its capacity over the next decade or so to meet demand. The city understands what's coming and recognizes it's not prepared today for it.

He also pointed out that charging will take place at home the vast majority of the time for EV owners. Half of homes in the greater metropolitan areas of Toronto, Vancouver, Montreal and so on have driveway accessibility to do at-home charging.

"So the first point of interaction is actually in your driveway. It's not necessarily out and about. So from that standpoint, that major challenge of 'is the infrastructure readily available' — yes, it is," he said during the session, Canadian *outlook and driving to an electric vehicle future*.

That leaves vertical housing as a challenge. Retrofitting apartment buildings and condos will be difficult, he acknowledged. But there's enough time to build out grid resiliency while the necessary infrastructure is put in place.

"But at least that first constraint shouldn't be an issue for what the government wants to do," Vildozo added.

ONTARIO BATTERY PLANT GETS $1B

AN EASTERN ONTARIO electric vehicle battery component plant is getting nearly $1 billion in funding from the federal and Ontario governments.

The Umicore facility in Loyalist Township, northwest of Kingston, will build cathode active materials and precursor cathode active materials.

Government ministers in Ottawa announced it is set to put $551.3 million toward the project and Ontario is set to spend up to $424.6 million in capital costs for the facility that will cost upwards of about $2.76 billion.

Ontario Premier Doug Ford said Umicore's investment is a vote of confidence in Ontario.

"The plant is going to create 600 direct jobs and I always say in the auto sector, there's seven spinoff jobs for every one job that we see here," he said, according to the Canadian Press.

"Right across the province, it's going to be multiples of thousands of jobs. In fact, that's going to boost the economy and activity across (the) mining, auto, manufacturing sectors and the service sector as well."

Belgium-based Umicore facility will bring great economic benefits to Ontario and strengthen Canada's position as the "green supplier of choice," said federal Innovation, Science and Industry Minister Francois-Philippe Champagne.

"It's about jobs, it's about growth, it's about opportunities and we are really together building Ontario as an economic powerhouse," he said.

Production is set to begin in early 2026 and the facility is expected to produce enough battery materials to support 800,000 electric vehicles per year, Ontario Economic Development Minister Vic Fedeli said.

FREE TRAINING FROM MOHAWK COLLEGE

AUTOMOTIVE SERVICE TECHNICIANS can upgrade their skills and earn a micro-credential from Mohawk College related to electric vehicle and hybrid training.

The Mohawk College Electric and Hybrid Service micro-credential is one of the first of its kind in the area — it's being offered for free to qualified learners for a limited time.

According to the course description, topics covered include high-voltage safety procedures, high-voltage vehicles, battery systems, motors, inverters and control systems, charging systems, hybrid and electric powertrains and HVAC systems specific to high-voltage vehicles.

"As interest and adoption for electrified vehicles continues to rise, the automotive industry will grow an even larger demand for skilled workers in all areas of transportation," said an announcement from the school. "Our network of repair shops must employ professionally trained technicians, and licensed 310S Automotive Service Technicians can now earn a micro-credential for developing specialized hands-on skills for electric and hybrid vehicle service.

The training is offered as a one-week condensed delivery to accommodate those working full time in industry. Intakes will start each month. Spots are limited.

To reserve your spot or to have any questions answered, contact Mohamed Mohamed at Mohamed.mohamed18@Mohawkcollege.ca with the intake you are interested in taking part in.

SAFETY BLITZ FINDS PROBLEMS WITH EV CHARGERS

THE ELECTRICAL SAFETY AUTHORITY is placing a watchful eye on electric vehicle charging installations.

A safety blitz of charging installations found more than 400 incidents of working without a permit. These installations might not be to code or generally safe, putting users and buildings at risk, the agency in charge of electrical installation in Ontario warned.

So the group has launched a safety campaign focused on the importance of only using approved charging equipment.

How are consumers unsafely installing chargers? The ESA found extension cords running across sidewalks, chargers being mounted on trees and more. Improper installation could lead to an electrical fire. So the ESA wants to focus on awareness around EV charging safety.

"But people will do anything to try to get some electrons into their battery," said James Fraser, general manager of the Electrical Safety Authority, in an episode of ASW Conversations. "And it's both dangerous for them and their family. But it's also something that's just plain unsafe. And we want to make sure that people install these in a safe manner."

SOME ICE CARS CHEAPER TO RUN THAN EVS: REPORT

A RECENT REPORT throws into question the belief that all electric vehicles are cheaper to gas up than internal combustion engine ones.

The Anderson Economic Group found that cheaper EVs are more expensive to fuel than cheaper ICE vehicles. But as you go up the ladder in price, the gap narrows and then the flips.

The findings are part of the group's fueling cost estimates for comparable ICE vehicles and EVs in the first half of 2023. It looked at gasoline and residential electricity prices, commercial charging prices, tax rates levied on fuel and EVs, fuel economy for popular models in each segment and the allowance for travel to commercial charging stations. It also considered four categories of real-world costs for both ICE and EVs, including energy, taxes, pump or charger and deadhead miles.

In all cases for EVs, costs were higher when depending on public chargers compared to home charging.

"These results underline the importance of considering real-world costs before making a buying decision," the group commented. "These include knowing how often you travel away from home, your ability to install and rely upon a home charger, the costs and availability of commercial charging, and any road taxes levied on EV drivers in your [area]."

In the entry-level segment of cars and crossovers, ICE vehicles were the most economical to fuel, costing about $9.78 (all figures in USD) per 100 purposeful miles. That's compared to $12.55 for entry priced EVs charged mostly at home and well under the $15.97 cost when charged mostly at commercial charging stations.

The gap closes a bit in the mid-priced segment. ICE vehicles are also still more affordable to fuel but as their costs go up about 13 per cent to approximately $11.08 per 100 miles, home EV charging costs minimally increase half a per cent to $12.62. Commercial charging, however, also sees an increase, but less dramatic than ICE to $16.10.

It's in the luxury-priced segment of cars and crossovers where EVs charged at home made the most economical sense. Owners of high-end EVs paid $13.50 per 100 miles — ICE drivers paid $17.56 to fuel their comparable vehicles. The group noted that the price of premium required gas to fuel these vehicles was a factor. But charging commercially still costs EV drivers more at $17.81.

When it comes to pickup trucks, diesel-powered options win the day with fuelling costs of $17.10 per 100 miles. Those powered by gasoline cost about $17.58 to fuel, while EV trucks charged mostly at home cost $17.72. Charging commercially hits the wallet harder as drivers found themselves paying about $26.38 — more than $9 higher than their diesel counterparts.

The group noted its surprise for EVs costing the same to charge as gas and diesel versions, but only when charged at home.

"For both businesses and those driving their own trucks, it is important to consider expected demands for travel to job sites, hauling, and extended road trips," it said. "These are likely to require regular commercial charging that can be expensive and time consuming."

CARS

CANADIAN AUTO REPAIR & SERVICE MAGAZINE

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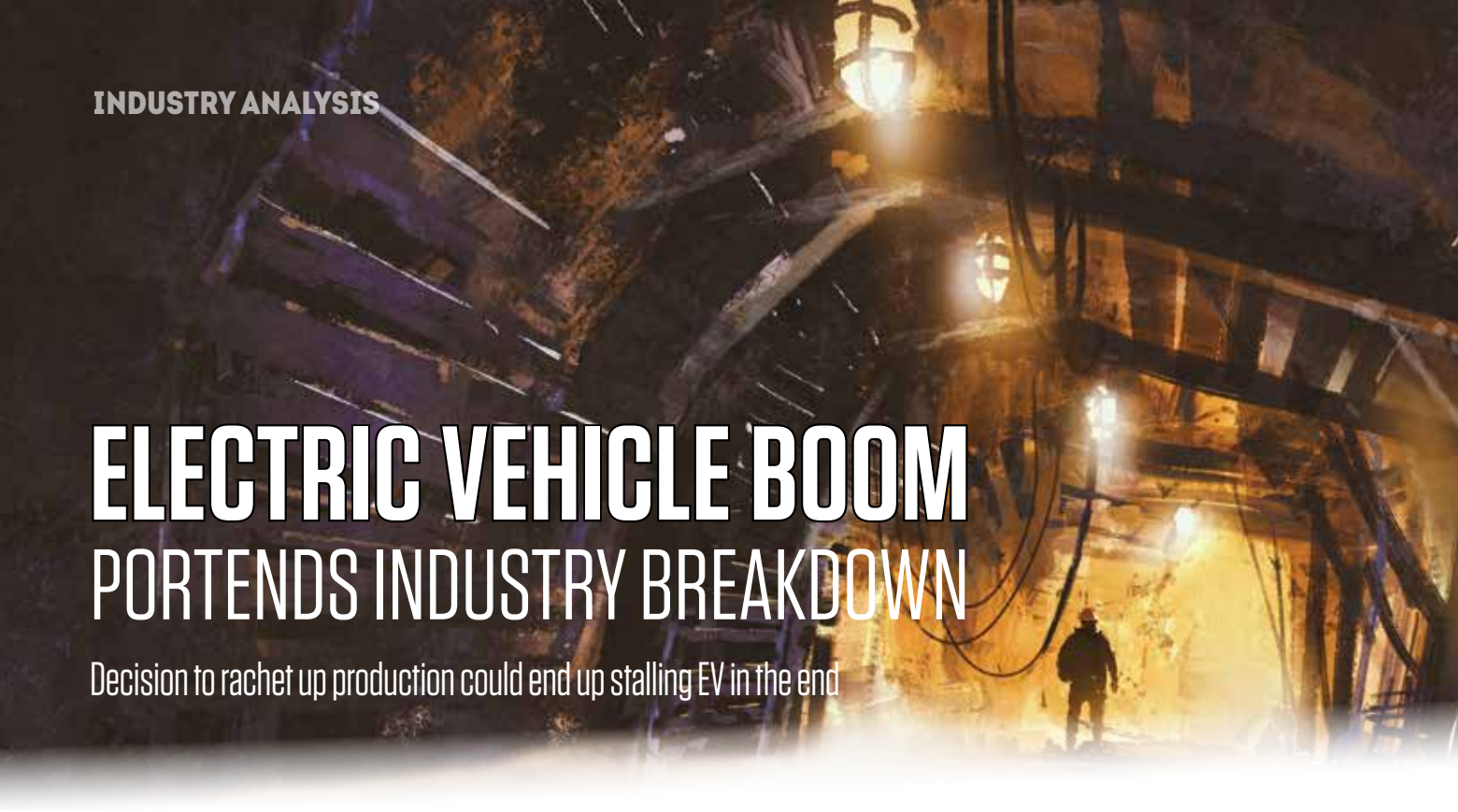


ELECTRIC VEHICLE BOOM PORTENDS INDUSTRY BREAKDOWN

Decision to rachet up production could end up stalling EV in the end

The rapid push to decarbonize transportation is moving almost too swiftly.

While the electric vehicle market experiences growth and surging demand, it also faces significant pressure that could strain the entire supply chain.

Underscoring it all is nickel supply. Nickel is an essential component in EV batteries. But it's at risk of running short. This could cause major disruption. Yet, despite the global push towards manufacturing, EVs remains in full gear with no signs of slowing down ahead.

A fragile EV supply chain

The shift towards an electric-everything future requires cohesion across key industries. Evidently, this has not been the case.

For governments and automakers, much of the focus has been on consumer buy-in. Now achieved, miners, who sit at the end of the supply chain pipeline, are finally being brought into the picture. This backward approach has the potential to cause major disruption.

This is because batteries are at the heart and center of electric vehicles. Made up of lithium, cobalt and 64 pounds of nickel, mining is the only way to get these materials. And according to the U.S. Department of Energy (DOE), by 2025, nickel supply will be deemed critically low.

This leaves the domestic mining industry to quickly extract these essential metals. The problem is this process is not quick. On top of this, nickel miners face ongoing challenges from permit approvals to community pushback.

Looming threat to affordability, accessibility

With a limited supply of resources and heightened demand, the affordability and availability of EVs are threatened. At this rate, EVs will continue to maintain high price points and long wait times. The current wait time for an EV is anywhere from two months to three years.

As appetite picks up and more countries come on board, wait times will only stretch further if current issues stay unresolved.

Heavy reliance on Asia

With domestic nickel supply under intense strain, all fingers point to Asia. To avoid a complete supply chain breakdown, governments are depending on non-free-trade countries like Indonesia for supply.

To be contingent on another country for resources is not atypical. However, as the world's largest supplier of nickel, Indonesia's political hold on the resource leaves room for future supply risk. It also clashes with the global energy transition at its core, as Indonesian nickel output relies on coal-powered execution.

Navigating the energy transition

The challenges brought forward by EV popularity are significant, but they also present opportunities for innovation and growth.

The turn towards cleaner and more sustainable transportation stems from rising concern over climate change, air quality, high operating costs and greenhouse gas emissions. To secure our energy future, we must refocus and reprioritize domestic nickel supply and mining.

By addressing these challenges within the broader EV ecosystem, we can pave the way for a greener and more sustainable future for all. Nickel will be at the heart of it all, powering the future of transportation. EV

Gregory Beischer
is the CEO and President of Alaska Energy Metals.

TODAY'S EV CUSTOMERS

From left, Darryl Croft and Mavrene Brooks from the Electric Vehicle Network in Toronto

Want more insights?

Scan the QR code to listen to the **EV World Magazine Enhanced Media** segment.

Older shoppers make up most electric vehicle customers. Industry veteran Darryl Croft shares his experiences of working with EV customers, how his company helps buyers find the right fit and what the aftermarket needs to do // By Adam Malik

Darryl Croft is no stranger to the auto care industry. He's probably been best known as the co-owner and vice president of an OK Tire shop in the west end of Toronto. He's a director of the Automotive Aftermarket Retailers of Ontario, an association for independent automotive service professionals. So he's a well-seasoned industry professional.

A few years ago, he realized something. He was fielding a lot of questions from customers and pros alike about electric vehicles. But it was difficult to get the answers. There weren't enough experts going around. At least, those who were unbiased. And it was next to impossible to get the real-life experience of working on or riding in an electric vehicle.

So the Electric Vehicle Network was born. Croft is the president. His company specifically serves to educate consumers about EVs. The business, just down the street from his OK Tire location, services EVs. It allows curious consumers to test out the vehicles. They can learn the ins and outs of an EV — even how to plug it in to charge up. And they can even buy an EV from him — the network can source a vehicle of the customer's liking.

Croft and Mavreen Brooks, an EV consultant at the Electric Vehicle Network, sat down with *EV World* to talk about what they're seeing in the EV market, how it's evolving and what impact it will have on the aftermarket.

EVW: What types of people typically come through your doors?

DC: Definitely the predominant requests we get are from older adults who are looking at an electric vehicle. We haven't specifically dug into each individual shopper as to why the older demographic is looking at electric. But the line is, they're done with gas. So I don't know if they've been driving long enough and realize the overall cost and headache that comes with an internal combustion engine — the maintenance, the breakdowns, the unpredictability — I don't know if it's that, but they certainly get to that point where they want to drive clean. And, actually, some shoppers have been very specific that they want to do something right and stop

An electric Kia Soul in for service at the Electric Vehicle Network in Toronto

polluting more.

The cost of vehicles today becomes a factor. So it could be partially affordability — older adults may be in a better position to actually make that decision and afford an EV. There's always been a premium to go electric.

EVW: What do you hear from younger folks? What do they say about EVs?

DC: I must say: On the opposite side, when I speak to younger adults who I thought would be totally into an EV — because no oil changes, less visits to the shop, no gas station — but they're the ones who seem to be saying, "Oh, I don't want that monthly payment that high." Or, "I go on camping trips and I don't want to worry about charging."

Where they live, they may not have charging — that's another one I hear. That's a big thing, actually. Older people are settled where they're staying. Younger people may be on the move; they're not sure where they're going to be. I've had even adults that own electric vehicles and, given the uncertainty of where their kids are going to be living, they actually tell their kids, "Don't get electric until you're stable and you know where you'll be living."

It's very interesting to see the interest level amongst demographic groups.

EVW: Isn't it an option problem as well? The types of EVs available are limited.

MB: With the younger people, they're starting families and the size of EVs don't reflect what they need. So yes, there's the Bolts, the Leafs and the Tesla Model 3s — that's what would be affordable to them. But at the same time, they want larger vehicles because they do have the car seats, the strollers and whatnots and all of that.

DC: There are some big electric SUVs coming out now but they're at a high price tag. Outside of the range, that's another thing to worry about as a young family. Whereas older adults, probably their kids are gone. They have less demand for big space. And it's easier from that point of view as well to get into an EV.

EVW: Don't EVs have a lot of space to meet these demands?

DC: In reality, a lot of people don't realize small EVs have big storage space. There's no engine, there's no transmission. A big part of what we do is helping people experience an EV. We get the comment, "Wow, I didn't realize how spacious this car was. I can fold down the seats. I can fit a lot in my car."

For a two or three-car family, do you need two big SUVs? Not really, in a lot of cases. You can save yourself a lot of money having a more of a zip-around car. And if you need one big honker to go on long road trips, so be it.

EVW: What are the biggest concerns people have when they ask about an EV?

DC: Absolutely, range anxiety is a real deal when anybody's shopping for an EV. So I would think that would be one factor, and unpredictability of where to charge. And I'm going to say patience, a little bit. And that's why EVs fit better for older people.

In moving to electric, definitely interest is there. But going through the thought process of actually getting to the end part is where a lot of people stumble in terms of one of these obstacles.

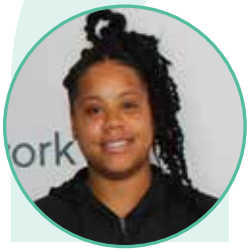
EVW: What's the most common question you're asked by someone curious about an EV?

MB: "How much range?" Because they're under the assumption that they need a massive amount of range. They'll come in thinking that they need a vehicle with 500-plus kilometres worth of range. Although they may drive 34 kilometres one way to work on the higher end of things. Once they realize that they don't necessarily need 500 kilometers — and if they are going a far distance, they realize they can stop along the way, take a rest, charge of the vehicle and whatnot — then their thinking changes.

After speaking with us, doing test drives, showing them economical ways to drive the vehicle to get the most battery usage out of it, they realize that they don't necessarily need to commit to a vehicle that has 400 kilometres of range, maybe something around 250 kilometres will be better suited.

DC: I hear questions around, "How long will the battery last?" When, really, time and time again, it's proven that these batteries by and large are outlasting the body of the car. And so they're still stuck on the idea, "Oh, how much is the cost if the battery fails?"

The battery is warrantied for eight years, 160,000. All the studies are showing, by a wide margin, these batteries are way outlasting the predictions, even of the manufacturers. The manufacturers do



Mavrene Brooks

So it's just bringing them back to reality in terms of what they actually need. And at that point in time, we're able to let them know of other models that may suit them better.

not want to have people replacing batteries in their cars.

So when customers find that out, it's a big shocker to them. It's an unfounded fear. That's not to say a battery issue doesn't happen. But the manufacturers support their vehicles.

EVW: What is a key question you ask shoppers to make sure they're able to take on an EV?

DC: We make sure they think about charging. We ask them, "Where do you live? Can you have a charger where you live or where you work?" That's very important. And then we ask where they normally travel. We make them aware of the public charging network that's out there. So we direct them to resources and say, "Look, you got a charging place right next to where you live, just in case you can't put one in."

It also gets down to the monthly payment. So people will say they have a budget of $X per month. But they don't realize that the average driver will save about $500 a month compared to a gas vehicle with gas and maintenance. Adding that to the equation makes it much, much more affordable.

MB: It's having that real discussion with them about how much range do they actually need. Do you actually need the all-wheel drive? Do you live within the city? Do you actually make commutes out of the city where you're going through deep snow and need the all-wheel drive? So it's just bringing them back to reality in terms of what they actually need. And at that point in time, we're able to let them know of other models that may suit them better.

EVW: How will more EV model options change people's perceptions?

DC: I do believe as new models come out, and they're lower priced, the used market, by default, has to become more affordable. And that opens up accessibility to more people on the used side. I don't hold a lot of hope that the new vehicles coming out are going to be cheap anytime soon. Everyone has said they'd offer it, but in practice, we haven't seen it happen. The affordable models have not hit the street yet, even though there have been pledges that they're going to try and compete in that space.

What the world needs is affordable EVs, whether it be used or better selection. So I think I think used is going to be the Number 1 path to affordability for the foreseeable future.

EVW: Is it becoming less convenient to have a gas-powered vehicle?

DC: It's interesting. If you look at Toronto, in reality, getting gas is not easy. The gas stations are disappearing at a rapid rate in urban centers — and charging is exploding. Charging availability is much more available. But it's almost like you don't know what you don't know. So when you think that, "Oh, I want to be sure my kid can get gas if they need it without getting stuck." And they don't realize that if they really understood the charging network, more often than not that'd see they could charge publicly — and it's only going to get better than what it is today.

EVW: So how do you bridge the knowledge gap and help people understand the reality of EVs?

DC: Our point of view on that is experience and education in a real EV. You can read about it all you want, you can listen to all about it but until you actually drive it, take it for the weekend, go to Montreal or go to Ottawa, realize that it's not a big deal to charge — and it's not expensive. A lot of people think it's a ton of money to charge. It's not. And believe me, they're worried about the first time plugging in the vehicle — they don't know how to do it. They don't realize it's really simple. But until they physically do it themselves, they're scared.

EVW: How should the aftermarket be preparing to service EVs?

DC: The most annoying thing that EV owners face is when they go to the aftermarket for service and the aftermarket doesn't know anything about the technology, their product — they're ignorant. And that really ticks off a car owner. They say, "I'm not going to go get service to a place that doesn't know anything about my product or what I'm doing." So the education about EVs is very important.

In the automotive world, you have to understand your client. And if you don't want to, that's great. Don't do it. But if you're going to do it, do it right. And it is definitely going to be a growing part of the market over a period of time. And do it right. So it means investing in your training your people, gaining your knowledge, your experience.

EVW: What has support looked like from the supplier end of the aftermarket? How are they helping?

DC: I must say the suppliers are starting to do a much better job of bringing training to the shops, whether it be the NAPAs of the world or the WorldPacs of the world. I can tell you, in the back end, there's a lot of effort going on to train our technicians in the industry. The government's got involved with a lot of training support. So it takes the will of those shops and technicians to participate in that.

THE FUTURE OF EV CHARGING

Here's what to expect in the coming years around the potential of charging up electric vehicles

//By Steve Rogers

Electric vehicles are increasing in popularity, and the automotive industry is going through an enormous transformation because of that. Being an auto care business owner or professional, knowledge about what will happen in the future of electric vehicles is crucial.

With charging infrastructure as the backbone of the EV ecosystem, keeping abreast of the changes in this dynamic area is essential. So let's explore the innovative trends and tech that are setting up the trajectory for EV charging.

Evolving EV landscape

The landscape of electric vehicles is undergoing a seismic shift that is reshaping the automotive industry as we know it. Those days are gone when the EV was considered a specialized sector; instead, at the present moment, it has become a powerful competitor within the car industry through its establishment. Emission standards are tightening worldwide and manufacturers must make significant investments in their electric vehicle offerings for them to remain competitive with the latest standards.

With government incentives and rebates adding fuel to this fire, financial rebates are making purchasing an EV enticing. The automotive aftermarket must understand the paradigm shift that EVs present for auto care business owners and industry professionals alike. Landscape change is happening so fast that you must be proactive if you want to grab the brass ring and stay ahead of this curve. This is an industry where electric vehicles are the new normal, not tomorrow's exception.

But even that's not enough when trying to make an EV landscape that evolves beyond rules-and-regulation/incentive compliance. It's marked by a fundamental shift in consumer preferences and expectations. EVs are not just eco-friendly substitutes anymore, but also considered an exemplary technological innovation in the automobile industry.

This change in how we see driving has generated strong consumer interest in electric cars. It will ultimately push incumbent automobile manufacturers out of their comfort zones and open up an era of creativity for the car market as a whole. As the industry grows, it offers both challenges and rewards for auto service companies. Recognizing the changes, anticipating the specific requirements of EV owners and

aligning your brand with them may be critical if you are eager to succeed amidst such alterations.

Cutting-edge charging technologies

High-power DC fast charging: The race to create quicker charging speeds never stops. High-power DC fast-chargers are revolutionizing in their own way that enables electric vehicles to charge much quicker than ever before in human history. That's not just a win for EV owners, though — this could be a boon for auto care businesses who see an influx of vehicles come through their doors.

Wireless charging: Imagine that once you've parked your EV, you don't need any wires for charging it. This, too, is no longer science fiction. Wireless charging pads are being made, and wireless charging into electric vehicles is also coming soon.

Ultra-fast chargers: Fast charging is a great feature, but ultrafast chargers are poised to change a lot more. This charger will quickly charge an amazing distance that can be available to the user of an electric vehicle.

Battery swapping: Another interesting trend taking off is battery swapping. This is accomplished by charging these batteries externally and replacing the already exhausted ones instead of waiting for charging. It has the potential to transform electrical vehicle charging and maintenance.

Enhanced user experience

Mobile apps and digital platforms: With every advancement happening in this electric vehicle world — everything revolves around user experience — it starts with the palm of your hand. Mobile apps and online systems are now more than ever helping EV owners to ease their vehicle recharging. With these instinctive tools — including an ability to find nearby chargers, track the charge of a vehicle in real-time and pay for everything with ease — users have a trusted companion that makes the reality of electric life simpler than ever.

Whether your next journey is going full throttle across the country or just grabbing the closest charger near you, these apps give control over EV charging right back to the driver, proving that electrification can be as easy and convenient as anything else.

Personalized charging profiles: The integration of AI-powered charging algorithms is redefining how EV owners interact with their vehicles and charging infrastructure. Smart systems gather data from a variety of sources such as driving behavior, battery state-of-charge and external factors such as weather and traffic conditions to make the right predictions on when and how much power an electric vehicle needs to charge.

The personalization of this product up to that extent makes the charging a lot more efficient as well as increases the end experience for users. Imagine your EV intuitively determining the ideal time to charge, minimizing wait times at EV charging stations, and ensuring your vehicle is always ready when you need it.

Personalized charging profiles represent the future of EV ownership, offering a seamless and efficient journey for users.

Auto care business adaptation

These improvements should be seen as more than "nice to have." They are essential for the survival and success of any auto care business that hasn't already made this shift.

Keep it simple. Don't make this a list of 10 things you can do right away — focus on one thing that would be easy for someone to start improving today. In addition to providing charging infrastructure, they are turning charging into an experience in its own right, with perks like comfortable waiting areas, fast internet and refreshments meaning this goes above just providing a basic service for users.

This strategy serves both to satisfy EV owners' practical needs as well as their aspiration to enjoy a trouble-free charging process. Consequently, vehicle care companies gain customer stickiness, also recognizing a situation in which electric vehicles will be very much part of their bouquet of services.

Scalability and infrastructure expansion

Rolling out additional electric car charging stations takes time and represents a significant investment — but shows how important these vehicles have become in overall auto trends.

This growth, although important for broad acceptance of EVs, is not without complications. There are many other aspects to consider. One is how the grid can handle an increase in load — that is to say, how ready and capable is our electrical grid to power all those millions and millions, if not tens or hundreds of millions, of electric vehicles on the road. It presents a practical and budgetary dilemma as utility companies and authorities aim to increase the strength of the network while keeping it stable and environmentally friendly.

Also, an increase in EV charging infrastructure requires a diligent focus on approvals, planning and land acquisition. It could take a long time in terms of paperwork to get all required permits for setting up the charging station as rules differ from one area to another. Meanwhile, discovering ideal places for those charging points that must be optimally placed regarding reachability and flexibility can be a daunting task.

However, the aftermarket does have one singular advantage in this landscape. With these programs, they are able to play an active role in expanding the EV charging network. By collaborating with existing charge network providers or rolling out their own, auto care operators could present themselves as crucial players in the EV ecosystem. This strategic move not only taps into changing market dynamics but also diversifies their revenue sources and strengthens their positioning as key players in the future of mobility.

Sustainability and renewable energy integration

The future of electric vehicle charging is inextricably intertwined with sustainability, embodying the profound shift toward eco-conscious transportation.

The integration of renewable energy sources, particularly solar and wind power, into EV charging stations epitomizes this commitment to a greener future. Solar panels adorning charging station canopies and wind turbines adjacent to charging infrastructure are becoming common sights, allowing these stations to harness clean, renewable energy from the very elements that drive EVs forward. This integration not only reduces the carbon footprint of EV charging but also aligns it with broader renewable energy initiatives, creating a synergy that promotes sustainable mobility.

In addition to solar and wind power, battery energy storage systems are emerging as crucial components of eco-friendly EV charging. These systems serve as energy buffers, storing excess electricity generated from renewable sources during periods of high production. This stored energy can then be used to power EV chargers when demand is at its peak or during adverse weather conditions when solar or wind generation may be limited. This resilience ensures that EV charging remains reliable and environmentally responsible even in challenging circumstances.

"For auto care businesses, V2G technology opens the door to exciting new revenue streams. Imagine a repair shop or parts store equipped with V2G-enabled charging stations where EV owners can not only charge their vehicles but also sell excess energy back to the grid during peak demand periods."

As the automotive industry continues its rapid transition toward electrification, the marriage of EV charging and renewable energy integration represents a pivotal step in reducing greenhouse gas emissions and forging a sustainable path forward for transportation.

Vehicle-to-grid (V2G) technology

In the realm of electric vehicle innovations, Vehicle-to-Grid (V2G) technology stands out as a transformative game-changer. Unlike traditional charging,

V2G enables a bidirectional flow of energy between EVs and the grid, effectively turning EVs into mobile energy storage units. This paradigm shift holds immense potential not only for EV owners but also for forward-thinking auto care businesses. V2G technology allows EVs to not just consume energy but also contribute back to the grid when needed, making them valuable assets in the broader energy ecosystem.

For auto care businesses, V2G technology opens the door to exciting new revenue streams. Imagine a repair shop or parts store equipped with V2G-enabled charging stations where EV owners can not only charge their vehicles but also sell excess energy back to the grid during peak demand periods. This dual functionality transforms charging stations into profit centers, offering a compelling reason for businesses to invest in V2G infrastructure. By tapping into V2G, auto care businesses can participate in demand response programs, earning revenue by providing grid services, stabilizing the grid during fluctuations, and reducing the strain on power plants during peak times.

The potential benefits of V2G extend beyond financial gains. This technology offers the opportunity for auto care businesses to strengthen their commitment to sustainability. By contributing to grid stability and facilitating the integration of renewable energy sources, V2G aligns with eco-conscious practices and can enhance a business's environmental credentials.

As V2G technology continues to evolve and gain traction, auto care businesses that embrace it position themselves not only as key players in the EV ecosystem but also as pioneers in shaping the future

of sustainable energy management.

Cybersecurity and data privacy

As electric vehicle charging infrastructure continues to evolve, one of the paramount concerns that cannot be overlooked is cybersecurity. The increasing connectivity of charging networks and the integration of digital technologies make these systems more vulnerable to cyber threats.

With a growing number of EV owners relying on these networks for their daily charging needs, the aftermarket must prioritize cybersecurity to safeguard both customer data and the integrity of their charging infrastructure.

The importance of robust cybersecurity measures in the EV charging landscape cannot be overstated. Cyberattacks on charging networks can disrupt services, compromise user data, and even pose safety risks. Auto care businesses, as stewards of customer information and charging facilities, bear a significant responsibility in ensuring the security of their systems. This involves implementing encryption protocols, monitoring for suspicious activities, and regularly updating software to patch vulnerabilities.

Furthermore, businesses should stay informed about the latest cybersecurity threats and collaborate with experts to fortify their defences. By prioritizing cybersecurity and data privacy, auto care businesses not only protect their customers but also foster trust in EV charging services, ensuring a safe and reliable experience for all users.

Global trends and international expansion

The future of electric vehicle charging is a truly global phenomenon and it knows no borders. As EV adoption rates continue to rise worldwide, the opportunities for auto care businesses to expand their operations internationally have never been more promising. Global trends in EV adoption and the development of charging infrastructure are presenting a unique chance for these businesses to tap into the burgeoning international market.

The global push towards electrification is creating a harmonized demand for EV charging services across various regions. As more countries commit to reducing emissions and embracing sustainable transportation, the demand for reliable and convenient charging solutions is becoming increasingly universal. Auto care businesses with a keen eye on international expansion can leverage their expertise and experience in charging infrastructure to cater to this global demand.

Collaborative efforts among nations and standardization initiatives, aimed at streamlining EV charging protocols and hardware, are further facilitating cross-border charging compatibility. This means that auto care businesses can explore new markets with confidence, knowing that their charging infrastructure can seamlessly integrate into the evolving global EV ecosystem. In embracing the international potential of EV charging, auto care businesses position themselves at the forefront of a transformative industry poised for worldwide growth.

Conclusion

The future of EV charging is exciting and dynamic. For auto care business owners and industry professionals, staying informed and adaptable is key to thriving in this evolving landscape. Embrace the cutting-edge technologies, focus on sustainability, and consider your role in expanding the charging infrastructure. The future of your business may very well be electric. EV

Steve Rogers is a content writer, and content specialist at Blink Charging

By The Numbers

Stats that put the North American automotive aftermarket into perspective

24.9%

Battery electrics (10.1%), hybrids (7.8%) and plug-in hybrids (3.2%) each set highs for quarterly market share new vehicle registrations in Q3 2023.

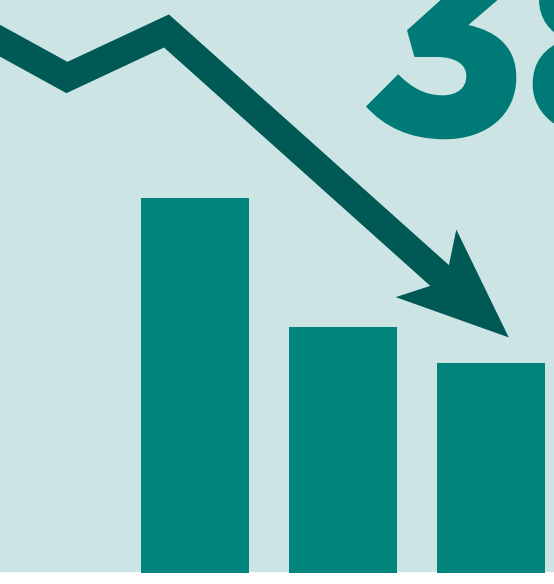
S&P Global Mobility

$1,328

The **average claims severity** in Canada for EVs was much **higher** than for ICE vehicles. Those cost differentials jumped $1,600 when looking at Tesla models only.

Mitchell

38%



The share of Americans likely to consider an EV **dropped four percentage points**. Saving the environment (72%) and saving gas (70%) were top reasons to buy.

Pew Research Center

$9.78

Fuelling an entry-priced ICE is **cheaper than charging an entry-priced EV** ($12.55) per 100 purposeful miles at home. Commercial charging would cost $15.97.

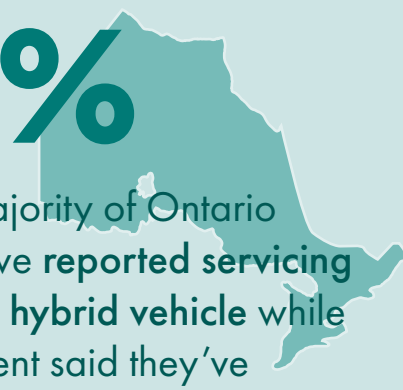
Anderson Economic Group

22%

Tesla dominated the most amount of chatter among automotive companies on Twitter in the first half of 2023. It was followed by Ford and GM (13% each).

GlobalData

71%



A vast majority of Ontario shops have **reported servicing a plug-in hybrid vehicle** while 48 per cent said they've serviced an electric vehicle.

DesRosiers Automotive Consultants

Talk Auto

November 8
Vaughan, Ontario

Canadian Black Book hosted the 2023 Talk Auto Event near Toronto where electric vehicles dominated many of the presentations. Experts discussed how new vehicle sales trends are impacting dealers, what trends the automotive community can expect in sales and how consumers have changed their purchasing journey. Still, conversations returned to electrification with speakers exploring timelines, charging infrastructure, buying trends, consumer trends and the potential for other propulsion options complementing electric.

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