

How auto techs, trade schools are prepping for EV future

September 15 2021, by Kalea Hall



Credit: CC0 Public Domain

Greg Patton says he's not like other mechanics with more than 40 years of greasy auto repair experience because he gets the coming electric vehicle future.

In the last four decades, he's watched manufacturers work to adapt their technology for better fuel economy to the point where vehicles now shut off when stopped. There's not much else they can do, he says, to achieve better fuel economy with internal combustion engines. And that's why EVs are inevitable.

"I would say it's long overdue," said Patton while sitting down for lunch at Mack Garage in Detroit where he works mostly on internal-combustion vehicles and occasionally a gas-electric hybrid. "I just can't wait for the fully level-five autonomous cars to be coming out."

As automakers accelerate their EV plans, independent auto mechanics, dealer service centers and trade schools training future technicians are weighing how and when to best prepare for more electric vehicles to hit the road—and some harsh realities with far-reaching implications loom.

EVs require less maintenance since they have fewer parts, especially in their drivetrains. That's a concern for some shops, but others say there's still a need for even more technicians who are trained to handle high-voltage wires that could kill if not handled properly when servicing EVs.

Right now, trade schools receiving accreditation from the National Institute for Automotive Service Excellence "don't necessarily have to teach hybrid or electric," said Mike Coley, ASE Education Foundation president. "Now a lot of programs are headed that way, and curriculum is being developed to teach that."

The technology is still evolving, he added, and "right now, a lot of that training is very manufacturer-specific."

General Motors Co.—which is planning to field an emissions-free lineup by 2035—established its Automotive Service Education Program, referred to as ASEP, in 1979. The program is a partnership with 50-plus

community colleges across the United States and Canada that offer a two-year associates degree in automotive technology with a focus on repairing GM vehicles through curriculum provided by the Detroit automaker, GM's director of global dealer service and warranty operations, Michael Durkin, explained in a statement to The Detroit News. There's a GM dealership co-op as part of the program.

"We will begin introducing EV content into this existing program in the near future as GM ramps up its transition to more EVs across the GM vehicle brand portfolio," Durkin said.

Stellantis NV, maker of Ram trucks and Jeep SUVs, maintains a network of about 100 Mopar Career Automotive Program or CAP schools it is working with "to equip and implement EV training in the future as the curriculum changes," said Brian Szalk, head of technical training at the automaker's National Technical Training Center, in a statement to The News.

Stellantis plans to give all of the schools an electric vehicle to teach courses on high voltage safety: "As these students often work part-time in local dealerships, they'll continue to get real-world experience servicing EVs in an actual work environment under the supervision of experienced technicians," Szalk said.

Oakland Community College is looking at adding an electrical class that's geared toward EVs and hybrids and has been looking at EV curriculum for a few years, said Claude Townsend, faculty in automobile servicing at the college.

But "the more we learn about it, the more we realize we need more training," he added, noting that "there's not a lot there. We're looking at curriculum, developing it, trying to come up with some people, maybe from manufacturers that could come in and teach the course for us, so

basically be an adjunct instructor."

Macomb Community College established its Center for Alternative Fuels in 2006, introducing training for hybrids. The college also has a Center for Advanced Automotive Technology that was established with funding from the National Science Foundation to support work on electrification.

This year, the school started a new program that focuses on autonomous vehicles that teach automated driving systems technology, too.

The transition to electric doesn't concern Ben Cruz, director of Macomb's Center for Advanced Automotive Technology, who says "it is exciting." But there are concerns the shift to electrification will lead to a loss of independent shops as owners look to retire instead of investing for the future.

"Unfortunately, that's happening right now," Cruz said. "The reason we're losing some of these is because they don't have the expertise to be able to work on some of the new vehicles, they don't have the equipment to be able to work on those, and they can't afford to have that equipment ... when the percentage of the work that's coming in is 2%."

Auto dealers trying to navigate the historic transition are investing thousands of dollars on equipment, charger installation and training for their technicians. Those selling Cadillacs, for example, were told by the brand to invest at least \$200,000 each to sell future EVs starting in 2022 or get out of the business.

About 200 out of 880 Cadillac dealers in the United States decided not to move forward with EV sales and are closing up. But LaFontaine Automotive Group in Michigan, featuring brands from Cadillac to Honda, has gone all-in on EVs at its dealerships and its technicians are

getting the training needed.

"We are struggling for technicians now ... but I personally believe that with EV, it's going to give more tech-savvy individuals and young people maybe a second look at being a technician because it has become a very technology-based position," said Mike Zasadny, fixed operations director for LaFontaine. "That's exciting for some of our young people and it may open the door to more opportunity for us to attract young folks into this field."

Stellantis and GM both offer dealerships access to EV training, but these programs are not currently open to independent service centers. Ford Motor Co. did not respond to multiple requests for information on its programs, if any.

"We intend to monitor the evolution of this market to ensure that our EV customers and owners get the service they need to keep their vehicles on the road," Szalk said.

GM's Durkin noted the automaker's EVs "have generous warranty coverage so initially, we don't anticipate our vehicles needing to be serviced in the aftermarket. Although our focus is on the GM network today, future plans would consider offering training through our ACDelco channel for the aftermarket, as appropriate."

Leo & Sons Auto Repair in Lawrence, Massachusetts, started by Leo Lamontagne in 1975, has pushed to keep pace with new auto technologies since its founding more than 45 years ago.

"That's something he instilled with me because (of) the rapid change in automotive technology," said Mark Lamontagne, Leo's son.

For the last 12 years, the dealership has delved into working on hybrids

and pure electric vehicles. Today, that side of the business represents about 50% of the revenue with most of that coming from hybrid work.

Mark Lamontagne knows there's less maintenance required for EVs. But "that was one of the reasons we got into it. We want to be on the forefront, we want to start figuring out how to be profitable now and be known for it now."

Surrounded by gas-powered vehicles needing repair at Mack Garage on Detroit's east side, Patton and shop owner Eric Nielsen say they will welcome EVs when they arrive. They've already worked in the Toyota Prius and Chevrolet Volt hybrids, among others.

"Obviously, it's the future," Nielsen said. "They're coming."

He added: "We are ready for it as a population especially with all the climate change we're having. I personally love big V-8 cars, and I will always have them. I don't drive them every day."

And though the argument is there will be less maintenance required on EVs, Patton notes there are tires, brakes, suspension and other components that should still need attention.

"They will probably have work," he said. "But the work will be a different type. Whether we like it or not, this technology is going to be here."

2021 detroitnews.com.

Distributed by Tribune Content Agency, LLC.

Citation: How auto techs, trade schools are prepping for EV future (2021, September 15)
retrieved 18 April 2024 from

<https://techxplore.com/news/2021-09-auto-techs-schools-prepping-ev.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.