

THE 4 BIGGEST CHANGES AUTO EMPLOYERS CAN EXPECT FROM THE COMING ELECTRIC VEHICLE BOOM

Insights
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While electric vehicles currently account for about 3% of U.S. car sales, that number is expected to radically increase in the coming years – and employers can expect big changes as a result. Just last week, President Biden signed an executive order setting a target of 50% EV sales by 2030. This aggressive target is supported by the Detroit automakers, who joined him in making the August 8 announcement, and by most of the other automakers who sell vehicles in the U.S. The 50% EV sales target is not mandatory, but it is in line with EV targets previously announced by several major automakers. Whether the auto industry will be able to meet the 50% EV target by 2030 depends upon several factors, but all of the major automakers are making substantial investments in EVs, and most industry forecasters predict that EV's will outsell internal combustion engine vehicles (ICEs) within 15 years.

The impact of the transition from ICEs to EVs is – and will be – huge. Employers in the auto industry (both manufacturers and dealers) will need to pivot their operations in order to meet the coming EV revolution. Those who begin to prepare now will be in the best position to succeed over the next decade and beyond. This Insight will explore the four biggest changes that automotive employers can expect from the coming electric vehicle boom.

Key Catalysts for Electrification

Before we explore the changes that are coming down the road, it's important to understand the key catalysts driving the auto industry towards electrification:

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■ **Government Mandates**

As of the date of this article, 13 countries and 31 cities and regions have announced plans to ban the sale of new ICEs. California is leading the charge in the United States and has announced a ban on the sale of new ICEs by 2035. Several other states that follow California's lead are expected to announce their own bans.

■ **Success of Existing EVs and Attractive New EV Models**

Several EV manufacturers are experiencing tremendous success, and every major automaker is introducing new EVs that are targeted to all segments of the market. Together, over 100 new EV models will be introduced over the next several years, ranging from luxury sport consumers, to truck buyers, to volume purchasers.

■ **Price Parity Between EVs and ICEs**

EVs currently cost more to build than ICEs, primarily because of the cost of the battery. As battery technology improves, the cost curves of ICEs and EVs will likely intersect in the next few years. Apart from the battery, EVs are cheaper to build because they require fewer parts than ICEs.

■ **Automaker Commitments**

Several major manufacturers have announced they will either no longer produce ICEs or will drastically reduce their output in the next decade. Others have targeted aggressive sales goals of EVs by 2030 (40-50%). And these automakers are backing up their EV sales pledges with hard investments. Cumulatively, the industry will spend more than \$300 billion over the next several years on EVs, as automakers replace the ICE "guts" of their vehicles with new electric technology.

■ **New Entrants**

The move to EVs has attracted many new entrants to the auto industry, several of whom have drawn billions of dollars of new investment and are completing their EV assembly plants. For the past several years, Apple has been rumored to be working on an electric vehicle. While Apple has not confirmed this rumor, according to several media reports, it has several hundred people working on a car project – code named "Project Titan." Reuters reported that the company is

targeting 2024 to produce a passenger vehicle, with a manufacturing partner, that could include Apple's own breakthrough battery technology.

4 Major Workplace Impacts in the Auto Industry

As the transformation from ICEs to EVs accelerates, the employment impacts will be huge, affecting not only automakers, but also their suppliers and dealers. Here are the four biggest changes you can expect in your workplaces over the coming years.

1. Job Losses

According to [a 2019 report prepared by the Congressional Research Service](#) (CRS), the widespread shift from ICEs to EVs may result in substantial job losses in ICE vehicle and parts production. EVs require fewer parts than ICEs, which means less labor is needed to produce them. EVs don't have emissions, so they don't need exhaust systems, mufflers, catalytic converters, and tailpipes. They also don't require spark plugs, fuel tanks, or radiators. Currently, 150,000 workers in the U.S. auto industry make components for ICE powertrains. As EVs replace ICEs, these workers will have to find other jobs or be retrained to build EV parts.

2. Union Organizing

But these job losses won't necessarily mean you'll see a reduced role for traditional labor in the future. The United Auto Workers union (UAW), which has warned that EV manufacturing will likely mean fewer jobs, joined in the Biden administration's announcement on the 50% EV target and signaled its intent to organize the new wave of EV workers. The UAW has long represented workers of the Detroit automakers but has struggled to organize the other automakers who now make most of the vehicles in the U.S. The union said it will seek to organize workers making EVs and EV parts – including those employed by the new entrants and by the many battery plants that will have to be built to power the EV's.

3. Retraining

As noted in the CRS report, making EVs requires different skills than those utilized in making ICEs, which rely heavily on mechanical and materials engineering skills.

EVs rely more heavily on electrical, chemical, and software engineering skills. American universities will have to step up their programs in battery engineering, and community colleges will have to develop curricula to train the middle-skilled workers needed to produce EVs.

4. Adjustment at Dealerships

On the dealer side, service technicians will have to be retrained to handle the new technology vehicles and salespeople will have to hone their techniques to cater to the EV buyer. While many auto dealers recognize that they must become full participants in the EV transition, they are concerned about the training costs and the impact on service department business. An EV doesn't require an oil change, a radiator flush, or a change of spark plugs.

Closing

To be sure, many obstacles remain as the industry electrifies. Many consumers remain skeptical about purchasing EVs. The EV charging infrastructure is woefully inadequate and must be rapidly expanded. The country's electric grid, which is already strained, will have to be improved. Some of the materials used in batteries are currently sourced from countries whose working conditions have been criticized by advocacy groups. A key component of EV batteries is lithium and plans to increase lithium mining in the U.S. have drawn protests from environmental groups.

Despite these obstacles, most signs are pointing to a speedy and accelerated transformation from ICEs to EVs, which will impact employment and job skills in the automotive supply and dealer chain. This transition – perhaps the most significant development in the auto industry since Henry Ford introduced the Model T - will present challenges for some and opportunities for all.

We will monitor these developments and provide updates as warranted, so make sure that you are subscribed to [Fisher Phillips' Insights](#) to get the most up-to-date information direct to your inbox. If you have further questions, contact your Fisher Phillips attorney, the author of this Insight, or any attorney in our [Manufacturing Industry Practice Group](#) or [Automotive Dealership Practice Group](#).