



# 5 Steps Manufacturers Should Take to Avoid Getting Shocked by the Electric Vehicle Industry

Insights

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If the iconic scene from the movie “The Graduate” were recreated today, Dustin Hoffman’s character Benjamin would be pulled aside by a local businessman who would have two words of advice for him: “**electric vehicles.**” As noted in our prior insight, the future of the automobile industry is indeed going to be EV-focused. The wave of battery powered vehicles is no longer fast approaching – it is here. Given the current state of affairs, what do manufacturers need to know about a future with the rapidly expanding electric vehicle industry? This insight provides five key takeaways for manufacturers.

## Significant Recent Developments

If you need evidence to prove that change is upon us, the Biden administration recently announced the rollout of \$5 billion in funding to states to increase the development of electric vehicle charging stations throughout the United States – funding that is part of the infrastructure bill that passed by Congress late last year.

### *Private Sector Development*

The private sector is already taking advantage of the coming funding increase. On February 8, an Australian company announced that it will locate a factory outside of Nashville dedicated to the development of electric vehicle charging stations. The factory is expected to pump out 30,000 fast-charger units. The new factory will result in economic benefits, including 500 new jobs, for the Tennessee economy. In its announcement, the company confirmed that the decision to build the factory was spurred by the infrastructure bill.

### *The Infrastructure Investment and Jobs Act and EV Funding*

The enactment of H.R.3684 – The Infrastructure Investment and Jobs Act in 2021 means that there will be \$7.5 billion in funds allocated for infrastructure projects related to electric vehicles. As discussed in a prior insight, the Biden administration has set a target of 50% electric vehicles sales by 2030. The Act, while not primarily aimed at EVs, includes funds earmarked to be deployed in the development of EV infrastructure. The Tennessee factory noted above is just one of an increasing number of private sector initiatives designed to take advantage of this unprecedented funding.

## ***Local Grants***

The Act also requires the distribution of grants of up to \$15,000,000 each, with priority given to projects in (1) rural areas; (2) low- and moderate-income neighborhoods; and (3) communities with a low ratio of private parking spaces to households or a high ratio of multiunit dwellings to single family homes.

## ***Working Group***

In addition, the Act creates an Electric Vehicle Working Group, comprised of the Secretary of Energy, the Secretary of Transportation, six members from various federal agencies, 19 members from private and public entities, and state representatives. They are directed to consider measures that promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure.

## ***Hydrogen Alternatives?***

The Act also presents an alternative pathway for the funds allocated to alternative fueled vehicles, giving private parties the option to develop hydrogen fueling infrastructure instead of, or in parallel to, EV infrastructure. Some manufacturers are looking to expand into that market. Japan has taken steps to accommodate the hydrogen technology. In fact, there are around 160 hydrogen stations in Japan alone.

But hydrogen is not carbon neutral, and it requires many of the same components of the internal combustion engine. This presents a tempting alternative if manufacturers can develop a safe, reliable engine that runs on the gas, as some car companies are not ready to give up on the internal combustion engine for electric vehicles. Absent some breakthroughs in technology, the viability of hydrogen versus EV is questionable. As noted above, the two words of advice for the future remain “electric vehicles.”

## **What Are the 5 Steps Manufacturers Should Consider?**

The time to consider the impact of EV on American manufacturing and the broader supply chain is here. All of the major car manufacturers are on board and poised to spend billions on battery production and development, already offering a variety of hybrid or electric cars and trucks (as evidenced by the Super Bowl commercials this year). Here are five steps manufacturers should consider to address the future EV world:

1. **Incorporate New Technology.** Automobile manufacturers are facing challenges due the increasing production of electric vehicles and are quickly developing new technology to build electric vehicles. These new systems will lead to an increasing reliance on computer technologies and AI. The new vehicles are forcing automobile manufacturers to rethink and rework automobile manufacturing plants, and modernize their current factories

2. **Develop New Supply Chain Relationships.** The change to electric vehicles will also come with supply chain issues, as EVs require different (and fewer) parts than the traditional combustion engines (e.g., exhaust systems, mufflers, catalytic converters, tailpipes, spark plugs, fuel tanks, or radiators). As EVs replace internal combustion engine-driven vehicles in the American market, manufacturers will be faced with developing or reformulating relationships with their traditional supply chain. The change will also create opportunities for new suppliers and challenge the traditional chain, as businesses begin focusing on the development of new products.
3. **Expect New Sources of Funding to Help Overcome Reliability Concerns.** As noted above, the Infrastructure Act has incentivized the development of EV charging stations. As the consumer demand for electric vehicles increases, automobile manufacturers will continue to focus on increasing the convenience and reliability for EVs. On the reliability front, new advances are already being pursued. For example, Purdue University researchers were able to create a prototype charging cable not subject to overheating that is theoretically capable of fully recharging an EV in under five minutes. Given the influx of public funding and incentives, there will be continued competition in the private sector for companies to capture some portion of the expected market in the alternative to gasoline-powered vehicles and push to enhance EV technology. These technological advances will continue to benefit consumers and manufacturers alike.
4. **Repurpose and Retrain Workers.** The new EV world will present manufacturers and suppliers with unique challenges from a labor perspective. One key for manufacturers as they move away from internal combustion and pivot to electric vehicles is the challenge of repurposing or retraining workers. The newest and best technology will only be as effective as the people who run it. Thorough, accessible, and user-friendly training will be critical.
5. **Remember your Employee and Labor Relations.** All employers, non-union and union, need to remember that the significant changes coming due to the growth of the EV industry will affect their employees and their employees' families at least as much, if not more, than it affects business and operations. Employers who develop and utilize effective communication strategies to keep employees updated, informed, and actively engaged will have an advantage. Regardless of what advancements are needed to succeed in the new EV industry, your employees will remain your greatest assets. For unionized employers intending to operate in the EV industry, the scope and speed of changes will require significant planning and implementation of effective labor relations and negotiation strategies.

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](#).

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