



ACCELERATING THE TRANSITION TO ELECTRIC: EV INFRASTRUCTURE AND CONSUMER ACCEPTANCE

The Alliance for Automotive Innovation (Auto Innovators) recognizes that the future of personal mobility is increasingly electric, and the auto industry will have invested more than \$330 billion by 2025 to reach the goal of an electrified future. All of that is in addition to continued improvements for conventional cars and light duty trucks to address air quality, greenhouse gas emissions and fuel economy.

A new generation of electric vehicles (EVs) is coming, and IHS Markit predicts there will be 130 models for sale in the U.S. market by 2026, up from over 50 models today.¹ These will include battery electric, plug-in hybrid, and fuel cell electric technologies with longer range, more capability, and in different market segments at a variety of price points. Although EV sales amounted to roughly 2 percent of all U.S. vehicle sales in 2020, consumer interest is growing because these vehicles are reliable, efficient, safe, and particularly fun to drive. To realize an increasingly electrified future, a comprehensive plan, as outlined in Auto Innovators' [EV letter to President Biden](#), is needed at all government levels to support a cost-effective, no-compromise experience for Americans.

Despite the significant number of EVs coming to market, consumers are unlikely to buy a vehicle that cannot be conveniently fueled. Although roughly 80 percent of EV charging takes place at home, more options are needed. This includes: affordable and readily available charging and hydrogen fueling infrastructure, easy-to-understand utility rate structures that reward off-peak charging, and improved charging or refueling times. Consumers consider all of these elements before buying or leasing an EV.

The shift to EVs also means expanded roles for utilities, energy regulators, and other stakeholders to create opportunities for new and existing businesses to participate in this clean transformation. With this in mind, Auto Innovators remains committed to partnering with public- and private-sector stakeholders to advocate for policies that create viable business models, attract new capital sources, and stimulate competition and innovation to successfully accomplish this shift.

We are at a pivotal time on the journey to a cleaner, safer, and smarter transportation future. The auto industry is committed to producing EVs. With timely, focused, and sustained leadership and investment from a variety of public and private stakeholders, consumers can fully realize the full benefits of EVs.

¹ Stephanie Brinkley, *IHS Markit Forecasts EV Sales to Reach US Market Share of 7.6% in 2026*, IHS Markit, <https://ihsmarkit.com/research-analysis/--ihsmarkit-forecasts-ev-sales-us.html> (May 28, 2019).



To that end, the Auto Innovators puts forth the following *EV Infrastructure Guiding Principles* to significantly advance EV acceptance and use.

Provide no-compromise mobility for EV drivers and fleets by rapidly scaling up access to charging infrastructure at home and work, around town, and on the highway.

- *EV drivers need access to convenient, accessible, affordable, and reliable charging for their vehicles wherever they live, work, and play. Hydrogen fueling stations need to be built to support fuel cell electric vehicles.*
- *Public and utility investments are needed to help EV charging networks reach a sustainable scale and to ensure infrastructure is available in more challenging settings, including multifamily housing, underserved communities, and rural areas.*

Accelerate the pace of infrastructure deployment through public-private partnerships and collaboration across government entities, industries, and stakeholder groups, and by building on the experience of early-acting states.

- *By working together, we can accelerate infrastructure deployment, fully realize the benefits of transportation electrification, and minimize the cost of this transition.*

Adopt utility rates and programs for EV charging that ensures it is affordable, compensates EV drivers if providing grid services, supports fleet electrification, and enables high-powered charging business models.

- *EV charging should offer drivers cost savings relative to traditional petroleum-based fuels and be designed to encourage charging when the grid is less congested and as renewable energy is abundant.*
- *Utility rate design can make or break the business case for fleet electrification and deployment of charging infrastructure, especially high-powered charging. Utilities and their regulators should address this potential barrier.*

Prepare for timely, cost-effective grid upgrades to support EV charging.

- *EV drivers need to be confident that grid technology is reliable, resilient, and able to accommodate their charging needs.*
- *Collaboration among utilities, automakers, EV charging companies, fleet owners, local governments and others will be critical.*



Ensure that all utility customers, especially those in underserved communities, benefit from transportation electrification.

- *Transportation electrification at scale offers many potential benefits including savings on transportation costs for EV drivers, lower overall energy cost, valuable grid services, lower GHG emissions, and improved air quality around high-traffic areas including fleet depots, ports, and freeways.*
- *Cost savings realized from EV rates and programs should be shared across participating EV owners and other utility customers.*

Adopt building codes that require level 2 chargers in 100 percent of new residential parking spaces at new multi-unit dwellings and single-family homes, and measurably increase the number of new workplace and public chargers based on dwell time.

- *Installing EV chargers during new construction can be five times as cost effective as retrofitting to add chargers.*