EVs Are 1 Million Strong: The Road Ahead

By **LISA WOOD**

In September, electric vehicle (EV) sales shattered records. Nearly 45,000 EVs were sold that month—a 25-percent increase from the prior month and a 100-percent increase over the same month last year. There are now 1 million EVs on U.S. roads.

It took nearly a decade for the first million EVs to be sold. That won't be the case for the next million.

To assess the future of electric transportation and related infrastructure needs, EEI and the Institute for Electric Innovation (IEI) developed an EV sales forecast through 2030, including both plug-in hybrid EVs and battery EVs, and identified the associated charging equipment infrastructure needs. Based on a consensus forecast of five independent estimates produced by the U.S. Energy Information Administration and private sector sources (Bloomberg New Energy Finance, Boston Consulting Group, Energy Innovation, and Wood Mackenzie), our results show the following:

- The number of EVs on U.S. roads is projected to reach 18 million by 2030, up from 1 million today (in other words, EVs will represent about 7 percent of all vehicles on the road).
- Annual sales of EVs are expected to exceed 3.5 million vehicles in 2030, accounting for 20 percent of all vehicles sold that year.
- About 9.3 million charge ports will be required to support those 18 million EVs in 2030. This tally includes Level 2 chargers at homes, along with publicly available Level 2 and DC fast chargers at workplaces, multi-unit dwellings, and along major highway corridors. This represents a significant increase in EV charging infrastructure over today.

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Public announcements from major automakers on forthcoming EV model availability and production volumes closely align with our sales forecast.

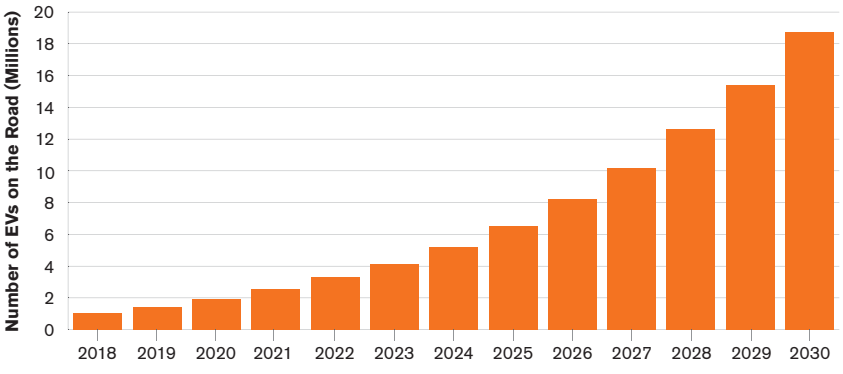
So, what is needed to reach 2 million EVs? Three million EVs?

A mix of push-and-pull policy and market developments are needed to support the 18 million EVs estimated to be on U.S. roads by 2030. Automakers appear to be gearing up for this increased customer demand for EVs by retooling manufacturing plants and lining up battery pack orders.

However, the EV ecosystem of today is fragmented. Multiple players will need to continue to collaborate and coordinate to move this market forward. There are several opportunities for policymakers, electric companies, infrastructure providers, automakers, customers, and industry stakeholders to align to support further EV growth:

- Strategically deploy charging infrastructure to reduce range anxiety and to support interoperability standards to ensure a common, convenient customer experience.
- Work with corporations and municipalities to ensure that EV charging infrastructure is both

EEI/IEI EV Stock Forecast: 18 Million by 2030



privately and publicly accessible and that electric company programs are in place to help these customers achieve their own EV targets and goals.
- Support local or statewide market transformation efforts, such as "stretch" building codes that require a certain level of EV charging readiness in new commercial office space and multi-use buildings.
- Maintain and grow public education and awareness efforts related to electric transportation.
- Continue to reduce upfront ownership costs, pushing EV prices closer to parity with gasoline-powered vehicles.
- Establish secondary use markets for EVs coming off lease, since the majority of EVs are leased.

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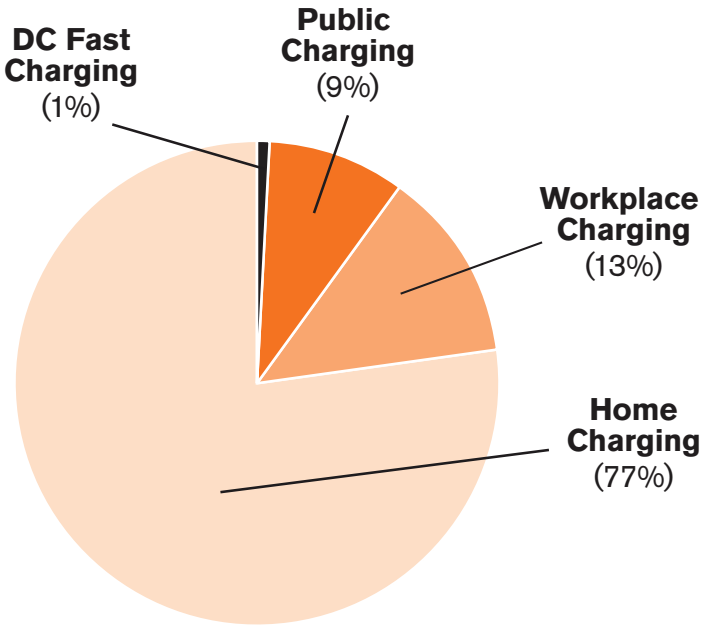
This is a momentous time for customers, electric companies, automakers, infrastructure providers, and others. Technology improvements and customer preferences are expanding the opportunities for electric transportation—and electric companies, in collaboration with automakers and others, are leading efforts to advance electric transportation and to move the market forward.

Electric transportation is a win-win; it meets customer needs and provides environmental and energy security benefits. The United States is the world's second-largest producer of greenhouse gases, and, today, transportation makes up the largest share of those emissions. Corporations, cities, and communities across the country are taking this issue seriously. Electric companies are uniquely positioned to help bring more electric transportation options into the market by investing in the infrastructure that will deliver the clean transportation future customers want and collaborating with automakers, infrastructure providers, and other stakeholders to move the EV market forward. EP

9.3 Million EV Charge Ports Will Be Needed by 2030



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