

## WHITE PAPER

# Interactive Signage, the Next Step in EV Charging Stations

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By Richard Slawsky | Contributing writer,  
KioskMarketplace.com

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The increasing popularity of electric vehicles combined with the corresponding need for EV charging stations has created a host of new opportunities for digital signage placement, with those opportunities only expected to expand as the sales of electric vehicles gains steam.

According to sales database EVVolumes.com, sales of electric vehicles in the United States topped 157,130 units in 2016, a 36 percent increase over 2015 EV sales. Car models helping to drive that increase included Tesla, up 97 percent over 2015 sales; the new GM Volt, up 61 percent over 2015; and the Ford Fusion, up 63 percent over 2015.

And that growth is expected to continue accelerating. EVVolumes predicts sales of 250,000 electric vehicles in the United States in 2017, a nearly 60 percent increase over 2016 figures. That makes the US one of the world's fastest-growing markets for EVs.

The public charging infrastructure continues to grow as well, with the number of charging locations increasing by 22 percent from October 2015 to October 2016.

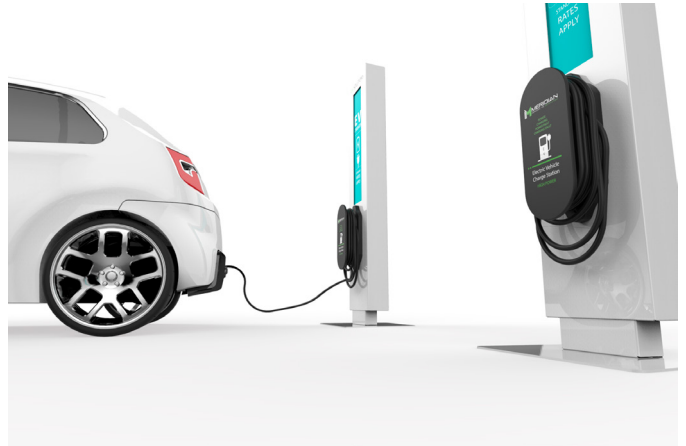
According to the U.S. Department of Energy, there are currently about 16,000 EV charging stations around the country with more than 41,767 individual charging outlets.

And in November 2016, the U.S. Department of Transportation announced plans to establish 48 national EV charging corridors on highways across the country, a move that would drive up the number of EV charging stations dramatically. These newly designated electric vehicle routes are expected to cover nearly 25,000 miles in 35 states.

## Making it pay

As the network of charging stations across the country grows, one of the challenges facing operators of those networks is finding a way to fund the cost of growth. That's where the power of digital signage comes into play.

Of course, one of the most popular methods of providing charging services is via pay-per-charge, where a driver swipes their payment card to help offset the cost. Others may choose to offer charging services as a customer amenity.



Either way, in most cases drivers will need upwards of 30 minutes to top off their battery, giving deployers of digital signage a prime opportunity to deliver messages to those drivers. Digital signage already has a reputation for engaging viewers and decreasing perceived dwell time. Unfortunately, if the charging process is going to take more than a few minutes, vehicle owners may simply walk off and leave their vehicle unattended. If that happens, the digital signage messaging may be playing without an audience.

Adding touch capability to that signage, on the other hand, can overcome that by encouraging those vehicle owners to stay with the vehicle, interacting with advertisements on the digital display, and checking news, weather and other information while waiting for their cars to charge.

Although specific figures are difficult to come by, according to information compiled by Digital Signage Today replacing a static poster with an interactive display can result in a 1200 percent increase in ad sales.

In addition, because every touch to an interactive display creates a record, those touches can provide analytics that can offer insight into customer behavior and determine which ads are most effective.

## Meeting the demand

As the number of EV charging stations grows, savvy digital signage providers are introducing solutions to incorporate digital displays with those charging stations.

Aberdeen, North Carolina-based Meridian Kiosks, for example, has combined its expertise in interactive digital signage with the company's passion for eco-friendly solutions to create fuseEV, an interactive or non-interactive self-service charging station for electric cars.

"The desire to provide this product stemmed from us looking to use EV vehicles as a company," said Meridian CEO Chris Gilder.



"While doing research we noticed the lack of infrastructure available for EV cars," he said. "Electric vehicles are becoming more affordable and the miles per charge is increasing substantially. These new advances are creating a rise in electric cars on the road that will encourage production of electric vehicle charging stations, as the success of electric cars will be dependent on the availability of EV charging stations."

The fuseEV charging solution includes a 240V, 32-Amp Level 2 EVSE with a 25-foot charging cable and a sleek, interactive or non-interactive touch screen depending on the deployer's preference. The touchscreen allows users to engage with digital information while waiting for their car to charge, allowing the station to be used as an informational tool, alert tool and advertising portal.

Meridian offers fuseEV as a stand-alone hardware solution, able to integrate with custom software, or with Meridian's self-service software. MzeroPlatform is a secure lockdown Web browser that allows Web content or custom attract loops to be displayed on the unit.

The solution is capable of integrating with MzeroPay, Meridian's bill payment software, allowing for a pay-per-charge operating model supplemented by advertising revenue. Businesses and organizations also have the option of providing the charge as a customer courtesy, collecting revenue solely from advertising.

While the installation use cases are essentially endless, some of the most popular locations Meridian envisions fuseEV being deployed include retail parking lots, city and town centers and sporting and event arenas as well as interstate rest stops, grocery store parking lots, community parks, office buildings, educational facilities and apartment complexes.

“Interactive kiosks paired with EV charging capabilities will give communities a way to further their green initiatives while providing a platform to broadcast information during emergencies, offer wayfinding services and promote local events and businesses,” Gilder said. “We’re personally excited to see this trend grow as we continue to enhance our own green initiatives.”



## Setting the standard

In the early days of electric vehicles, manufacturers began deploying what’s known as Level 2 charging stations around the country to incentivize consumers to buy electric vehicles. These 240-volt systems provide charging rates of 6.6 kilowatts for each hour of charging, or about 25 miles of range per hour of charging. In addition to charging stations located in public areas such as gas stations and parking garages, many EV owners have Level 2 chargers installed at home.

More recently, Level 3 chargers – otherwise known as DC fast chargers – have begun appearing at public charging stations. Level 3 chargers can deliver 19 kW in about 30 minutes, or about 80 percent of a full charge.

Another option for fast charging that is gaining popularity is the new SAE Combined Charging Solution, or CCS. These can deliver roughly 80 percent of the range of a 100-mile EV in a 30-minute charging session.

And finally, the charging format for Tesla EVs supports all charging levels from Level 1 (a residential wall outlet at 110 volts) up to the Tesla-only DC Supercharging network, which offers 170 miles of range in a 30-minute session.

## About the sponsor:

*Meridian works with customers from concept to completion to turn ideas into custom-made kiosks. The company also offers the largest line of standard kiosks in the self-service industry.*