

## A Comparison of EV Travel Experiences by Chase Waites

I'll start by talking about the first road trip we took in our 2018 Nissan Leaf, which is when we picked it up new from a dealership outside Chicago. I had routed out the chargers for our trip home using the PlugShare app, and we coasted into the first stop in Lafayette IN with a nearly empty battery (123 miles from where we started). We plugged in to a Level 2 charger at a Nissan dealership and ate dinner. We drove another 60 miles to the only CHAdeMO charger along the route in Indianapolis to fill up the battery. Our next stop was 76 miles later in Richmond near the Ohio border, where we plugged into a Level 2 charger at a Toyota dealership for a couple of hours and napped in the car. From there we made our way to a Level 2 charger at AAA shop in Dayton, then to a Level 2 charger in West Jefferson. The last stop before Westerville was a CHAdeMO charger at a AAA shop in Dublin. The entire trip was nearly 20 hours! Of course, looking at the PlugShare app today, so many CHAdeMO chargers are available, which would have significantly improved the trip and cut down the time needed (coming from an 2015 i3 though, this was still an improvement in usability).

We've used other CHAdeMO chargers for shorter road trips within Ohio, but found them to be sometimes blocked by ICE cars, slow, or just inoperable. We definitely relied on user reviews in the Plugshare app to gauge whether or not to expect a CHAdeMO station to function as expected.

Fast forward to our first road trip in our 2021 Tesla Model Y in July 2021. I routed out the trip using the A Better Route Planner app (which can be used to plan routes for any EV) to get an idea of where we would need to stop. The app tells you how long each stop will take, and even how much each charge will cost! Road tripping in a Tesla is SO easy - type your destination in the onboard GPS, and it plans out the route and optimizes each Supercharging stop. Plug in at a Supercharger, and the screen tells you when you're able to make it to the next stop. In Kentucky and Ohio, many of the Superchargers were in Meijer parking lots, which is very convenient to be able to use the restroom and get a snack. We averaged about 10-15 minutes per stop until getting south of Nashville, where the Superchargers were a little more spaced out and we had to charge a little longer (about 20 minutes). We didn't have to wait for an open Supercharger until Greenville Alabama, but the wait was only a couple of minutes. After charging there, we were able to make it the rest of the way to Panama City Beach FL, where we plugged into a 120v trickle charger. On the way back home a week later, again, the longest we waited was in Greenville AL, about 10 minutes this time. The Superchargers seemed busier along I-75 on a Sunday, but nothing too crazy.

All in all, there's just no comparison between the Tesla Supercharger network and the CCS (i3)/CHAdeMO(Leaf) charging stations. Tesla Superchargers each have at least 8 bays, where my experience with CCS or CHAdeMO chargers is 1-2 per location. Tesla Superchargers were also much cheaper, and in much more convenient locations for our roadtrip. Hopefully the other systems catch up, and they're definitely usable, but the Tesla network sets the bar for everyone else to follow right now.