



Testimony in Support of SB 307
Delivered to the Senate Energy and Public Utilities Committee
Tim Benford—President of the Drive Electric Dayton
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Chair McColley, Vice Chair Schuring, Ranking Member Williams, and members of the Senate Energy and Public Utilities Committee: my name is Tim Benford, I am a resident of Oakwood in Montgomery County, and am President of Drive Electric Ohio, a chapter of Clean Fuels Ohio and the Electric Vehicle Association. Thank you for the opportunity to submit written testimony on Ohio Senate Bill 307.

As a battery electric vehicle (EV) owner for almost four years now (a Tesla Model 3 Long Range) and founder in 2017 of a group of some 500+ EV enthusiasts in the Miami Valley, I am in full support of SB 307: Accelerating Ohio's Auto Industry (AOAI). Like many of the residents that come to our EV Ride & Drive events or email me for advice on what EV to buy, I appreciate the many advantages EVs have over internal combustion engine-powered ones.

EVs are much more fun to drive because of the instant torque at any speed, including from a standstill. My EV's electric drive unit (motor) that provides the acceleration also reduces the need for using the brakes and brake repair. When regenerative braking is selected, when I take my foot off the accelerator, the motor acts as a brake to slow the vehicle down, converting kinetic energy into electrons which flow back into the battery. As gas engine powertrains typically have 100 times the number of parts of an EV powertrain, I have only paid \$300 for maintenance: comprising three tire rotations and one cabin air filter, after four years of ownership. My EV battery is warranted for a minimum of 100K miles and eight years. JB Straubel, CEO of Redwood Materials, an EV battery recycler, predicts that EV batteries will last on average 15 years.

I love that my EV is so efficient: EVs convert over 77% of the electrical energy from the grid to power at the wheels. Conventional gasoline vehicles only convert about 30% of the energy stored in gasoline to power at the wheels—the balance (~70%) literally goes up in smoke. Last summer, my wife and I drove to Grand Haven, MI for a week's vacation. Over seven days of driving 950 miles and charging only at Tesla Superchargers, we only spent \$59 for electricity. In light of the current spike in gasoline prices, the savings on fueling costs with EVs are even greater. We routinely drive to see our daughter in Washington, DC and have driven to Cleveland, Boston, New York and Charleston, SC without concern.

Vehicle safety is very important to me and many others. There is no heavy engine block in front of the EV passenger cabin. Instead there is a crumple zone (often a front trunk or frunk) which is great protection in a head on crash. EVs' heavy batteries are usually underneath the passenger cabin, therefore they are very difficult to roll over.

I find that life with an EV is very convenient. Anywhere there is an electrical outlet, there is a refueling place. Further, manufacturers are putting their latest technology into their EVs, and over-the-air software updates keep them current. My Model 3 has many capabilities today that it

did not have back in 2018 when I bought it, such as a Sentry Mode dashcam system and a comprehensive advanced driver assist system which recognizes traffic lights and stop signs.

In sum, per consumer reports, an EV owner like me will save an average of 50% in vehicle lifetime repair/maintenance costs and, when charging at home, 70% in fuel costs. There is so much to love about driving electric!

When away from home, there are now so many DC Fast Chargers installed across the USA (19 non-Tesla networks with 4,300 locations, 8,500 stalls and 1,430 Tesla locations with 10,000 stalls) that range anxiety for me and most EV owners does not exist. With the implementation of the bipartisan Infrastructure Bill's 500,000 new chargers over the next several years, range anxiety will disappear altogether.

Because our EVs Internet-connected computer systems know where all charging stations are located, finding one is easier than finding a gas station. Planning a trip is made easy by apps like [ABetterRoutePlanner.com](https://www.abetterrouteplanner.com) or by entering 'ev charging' into the Google or Apple Maps search field to instantly see a list of local charging stations. My EV lets me navigate to any address by pressing a button on the steering wheel and saying, for example, 'navigate to Charleston, SC'. A route map will appear within seconds on the screen showing in advance the fast chargers you'll stop at, the state of charge at each stop, the charge duration, and ETAs at each waypoint en route, route mileage and arrival ETA.

The word about the benefits of driving EVs is getting out via a plethora of EV ads on TV (c.f., Super Bowl 2022), EV topic websites, and via enthusiasts speaking about them to friends and neighbors. I'm eight presentations in, on a series of 11 invitations to give a talk entitled 'Why Your Next Vehicle Should Be Electric', to local Rotary Clubs, Regional Planning Committees, and more. When supply chain issues subside, and Federal and State pro-EV bills are passed into law, an exponential growth in EV sales is certain. We all need to support SB 307 to ensure Ohio is ready to prepare the State for a surge in EV manufacturing jobs, EVs on its highways, and an EV future.

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