

## Comment on CA ZEV mandate

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Dear Secretary Garvin:

I am writing this from Florida, having driven a distance of 1055 miles in my Dodge pickup. I feel my experience demonstrates why electric cars are not acceptable as a transportation technology that should be forced onto Delaware citizens.

I left Millsboro with less than half a tank of gasoline. 242 miles later, I filled up in Skippers, VA. It took approximately 8 minutes and when I left the station, the truck indicated a range of 563 miles.

At 603 miles, I filled up in Ridgeland, SC. It took less than 10 minutes. When we pulled into the station, our range was 150 miles, when we left it was about 550.

We drove the rest of the trip, 452 miles, without refueling. When we arrived at our destination in Fort Myers, we had a remaining range of 63 miles. We didn't fill up until the next afternoon.

In summation, there were 2 refuelings and fewer than 20 minutes total spent in refueling while traveling.

Let's consider what would have happened if we had driven a Chevy Bolt or a Ford Lightning pickup.

### BOLT

Advertised range is 259 miles. However, you can't drive until it stops dead on the road. Most wouldn't want to use more than 80% of that range, which is 207 miles. Simple math tells us we would have had to recharge at least 4 times, plus having a 100% charge before leaving from home. The time required for each charge would have been more than the 16 minutes I spent filling the Dodge gas tank twice.

### LIGHTNING

Advertised range for the more expensive battery package is 320 miles. 80% of that is 256 miles. To drive 1055 miles would require at least 3 recharges after a full charge at home before leaving. Each recharge would take about 45 minutes at a fast charger.

Unfortunately, there is much more bad news. The temperature during most of the trip was below 40 degrees, getting all the way down to 32 degrees in Georgia. All electric car companies tell you your range will be less under 40 degrees. Ford actually tells you turn the heater off and use the heated seats and heated steering wheel (if you have them.) I can assure you, I would not have been happy, nor would my wife have been, at the prospect of driving 13 hours on Tuesday with no heat.

<https://www.ford.com/support/how-tos/search/cold.weather.driving.tips.for.battery.electric.vehicles>

cold weather driving tips for battery electric vehicles - Ford Motor Company

Ford Motor Company's Battery Electric Vehicles (BEV) are tested in extremely cold conditions. However, all-electric vehicles have less energy in cold temperatures compared to warm weather due to battery cell chemistry. Temperatures below 40°F cause the electrolyte...

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Then there is towing. Although I didn't on this trip, I have towed a 6500 pound boat to Florida and back 3 different times. I've taken it to Cape Hatteras many times. By actual test, the Ford Lightning won't even go 100 miles when pulling a heavier trailer.

One final point. The low fuel warning light on my Dodge comes on at 55 miles of range remaining. I virtually never let it get that low, and my wife is less comfortable with "stretching it." When you leave home in a Chevy Bolt, especially in cold weather, you are less than 152 miles (probably a lot less in cold weather) from 55 miles of remaining range.

When you leave home with your Ford Lightning pulling a trailer, you are only 30 to 40 miles before reaching the 55 mile "low fuel" point.

At one point, I had considered the possibility of purchasing one electric car for local trips. I now realize I have driven every vehicle I've owned to Florida. I am not willing to spend extra money to purchase a vehicle that won't do the most important job of all, which is to provide the ability to travel.

In fact, I wouldn't consider purchasing a Chevy Bolt because there would be no guarantees I could even make it to the Riverfront and back to Millsboro on a cold winter's night. In fact, just today I was told by a Bolt owner that they can only count on about 165 miles of range in winter conditions.

To be clear, no doubt many people will be happy to purchase an electric vehicle. I'm happy for them. For the rest of us, the electric vehicles in existence and those proposed for the foreseeable future just don't cut it if you actually need to travel a distance, or tow or haul a heavy load.

I would appreciate hearing your thoughts on this.

Thank you,  
Rep. Rich Collins  
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