

My Five Battery Electric Cars

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Introduction

I purchased a Toyota Prius in 2005 and had it converted it to a [Hymotion plug-in](#) in 2008. I sold it to my granddaughter in 2012.



I purchased a Toyota Highlander Hybrid Limited in 2006 and [tried to convert it to a plug-in in 2013 and failed](#). I traded it in for a Toyota RAV4 Hybrid Limited in 2016. I wanted the Mitsubishi Outlander plug-in, but it was not available in the U.S. yet.



Of course, what I really wanted since 2005 was a battery-electric car (BEV) with no gasoline engine. So, I began a five-BEV odyssey as described below as soon as possible.

ZAP Xebra PK

I purchased the Chinese ZAP Xebra PK electric pickup in March 2007. I named it Sun Roper because it had a 150-watts solar panel over the bed.

- **Classification:** 3 wheel motorcycle (Zero Emission Vehicle)
- **Batteries:** Six 12-volts sealed gel lead-acid deep-cycle traction batteries, placed under the truck bed for easy access, along with charger, controller and accessories 12-volts battery. I added a 7th battery to change Sun Roper from 72 volts to 84 volts; it made a huge difference for driving around Blacksburg & Christiansburg VA.
- **Motor:** DC brushed 100 volts
- **Dimensions:** 10' length, 4' 6" width, 5' 1" height, 1820 lbs weight; the inside of the bed is 56" long by 51" wide.
- **Range:** New Discover batteries: Up to 30 miles per charge. **Charger:** Onboard 110 Volts AC. Batteries yield the most energy per lifetime when usual distance traveled is 15 miles per charge.
- **Seating:** 2 (Maximum cargo 500 lbs)
- **Running light:** front center with high and low beam
- **Solar Panel:** 150 Watts (It would take 47 hours to charge the 7.1 kWh batteries with this solar panel. 10 hours of full sunlight would charge the batteries about 21%.) The main purpose of it is to trickle charge the batteries to make them last longer.
- **LED Lights:** An optional feature that is installed on my PK. It reduces the energy needed from the accessories battery and therefore the necessity to charge the accessories battery from the traction battery pack.
- **Color:** Blue
- **Price:** About \$12,000



I tried to [convert it to lithium-ion batteries in 2009 and failed](#). I gave it away in January 2010.

2012 Nissan LEAF SL

I leased a cayenne-red 2012 Nissan LEAF SL for 3 years in 2012.



This license plate has been on all of my BEVs starting with this one.

Specs

- 24-kWh lithium-ion battery
- 80-kW synchronous motor
- 73-miles EPA range
- FWD
- Battery warranty: 8 years or 100,000 miles
- 3.3-kW charger

A man ran a red light in front of me and mangled the front of the car:



It was repaired.

2015 Nissan LEAF SV

I leased a pearl-white 2015 Nissan LEAF SV for 2 years in 2015.

Specs

- 24-kWh air-cooled lithium-ion battery
- 80-kW synchronous motor
- 84-miles EPA range
- FWD
- Battery warranty: 8 years or 100,000 miles
- 6.6-kW charger



When I turned it back to Nissan they sold it to my older daughter for a low price. My younger daughter now owns it.

2017 Chevrolet Bolt EV

I bought a Cajun-red-tintcoat 2017 Chevrolet Bolt EV in 2017.

Specs

- 60-kWh liquid-cooled lithium-ion battery
- 150-kW motor
- 238-miles EPA range
- FWD
- Battery warranty: 8 years or 100,000 miles
- 7.2-kW charger
- 50-kW CCS charging inlet

[I drove the CBEV on 15 long trips up to 441 miles.](#)



I sold it to my older daughter in 2018; she sold her Nissan LEAF SV, which was my previous BEV, to my younger daughter.

[2018 Tesla Model 3 Long-Range](#)

I bought a red-multicoat Tesla Model 3 Long-Range on 28 May 2018 after waiting 2 years and 2 months for it.

Specs

- 75-kWh liquid-cooled lithium-ion battery
- 192-kW permanent-magnet motor
- 310-miles EPA range
- RWD
- 0-60 mph in 4.8 sec; 0-30 mph in 2.4 sec
- Battery warranty: 8 years or 120,000 miles
- 9.6-kW charger
- 91-kW [Supercharging](#) capability
- [Autopilot](#)
- 15" landscape touchscreen

I and my older daughter drove it easily from [Virginia to Texas and back using Tesla Superchargers](#).



I had Collision Plus paint the gray [aero wheel covers](#) outer portion silver and I put on the [red wheel rings](#).

This will probably be my last BEV as it can travel anywhere in the U.S. using Tesla [Superchargers](#) and [Destination Chargers](#):

