

The EV Acquisition Continuum

If you want an EV, you can't just go down to your local Auto Dealer Superstore and buy one off the lot. If only it were so! To get into the driver's seat of an EV, let's face it - you have to be willing to put forth unusual effort and/or money, certainly a lot more than the typical auto purchaser.

As in so many things, there's a balance between effort and cost. The more technical expertise and time you're able to spend on getting that EV to your driveway, the cheaper it will be. Conversely, the more money you have to spend, the less hassle you'll have accomplishing your goal.

In March of 2007, in a post on the EVDL, I suggested thinking of this as a linear continuum.

As I see it, there are two directions when approaching EV conversion. They exist at the ends of a continuum.

At one end, let's arbitrarily say the left end, is a fully assembled EV such as the NMG or an AC Propulsion E-Box. A little further along you find complete conversion kits from Electro Automotive and Canadian EV. Somewhere a bit further are the highly integrated and fool-resistant (but not foolproof!) components such as AC Propulsion's and the Brusa and Siemens drive and charging systems. Then come the mix-and-match but tried-and-true combinations of DC motors, controllers, and chargers. A little further along we find used and surplus components. That range carries to the other end of the continuum. There we find people scrounging through scrapyards, trolling government surplus sites on the web, dumpster diving behind motor shops and industrial vehicle dealers, and testing old golf car battery cores one by one in the snow and drizzle outside battery shops.

There are exceptions, but in general : The dollars start out big at the left and get small at the right. The amount of time required starts tiny at the left and gets huge at the right.

All good so far, but regrettably the experience and skill required also start small at the left and get large at the right. It's regrettable because many people starting out in the EV hobby have little experience and skill, but also don't want to spend much money.

Mike Harvey responded with a better model. He suggested a two-axis approach. He even created a Ven diagram of his model. I think it's a pretty good description of what people do in acquiring an EV.

Note well the circle at the lower left of the diagram, where cost, effort, and expertise are all low.

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