

Rebecca Buck

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Sent: Saturday, March 09, 2019 4:34 PM
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Subject: Ultra Fast Chargers

PS:
The only reason to spend money on public charging stations is if they're the "ultra-fast" chargers, otherwise they'll be obsolete in just a few years, making them an even greater waste of money. Here's some links to some information about the ultra-fast chargers being rolled out in California and Europe:
<https://cleantechnica.com/2018/12/11/evgo-goes-plaid-with-new-ultra-fast-charging-station-in-baker-california/>
<https://insideevs.com/shell-ultra-fast-chargers-europe/> generation
<https://insideevs.com/shell-recharge-launches-in-uk-10-fast-chargers-by-the-end-of-2017/>

Steven

All,

Based on my own experience, I have some serious doubts about the effectiveness of installing more charging stations in public spaces as a way to encourage large-scale adoption of electric vehicles. I also have some suggestions for what I believe would be a much more effective use of our limited resources:

Here's my experience:

1. Our family leased a Nissan Leaf for about 4 years and drove over 40,000 miles.
2. During that time, we probably only used a public charging station about five times, and except for a few of these times (see #3), those charges were just to see how the stations worked and take advantage of the free electrons. In other words, they weren't needed to complete our trips.
3. The one time that I really needed the extra range (ie. the round trip exceeded the Leaf's 80 to 90 mile range), the extra range provided by the fast charger in Moretown still wasn't enough to complete the round trip, primarily because it only charged 80% during first 45 minutes. After charging for three hours using a 110 outlet at my destination, and a second charge at VT Law School on the return trip, I still ended up having to stop at a gas station and be towed back to Charlotte from Norwich at around midnight. Needless to say, my wife wasn't particularly impressed with my assurance that I had it all figured out and we'd have enough charge.
4. One other time I drove from Charlotte to Spruce Peak Performance Art Center (by myself this time) where I knew there was a public charging station. But I did so knowing there was the risk that the station would be occupied or out of service for the two hours I was at the event, and might need to be towed home (again).

5. For obvious reasons, every other trip I took with that car was only within the 80 to 90 round trip range.

So, when I hear about the millions of dollars being spent to install public charging stations and I consider the tens of thousands of electric and PHEV's that we need to meet our GHG emissions targets, I can't help but feel that this is a complete waste of money. And while spending these millions of dollars may give people the feeling that we're doing something consequential, based on my own experience and that of other EV owners I've spoken with, I suspect that increasing the number of public charging stations will in-fact do very little to encourage masses of Vermonters to buy or lease EV's.

In other words, if public charging stations are primarily used as I and most other EV/PHEV drivers use them, as a convenience but NOT to complete a round-trip, than installing more of them (at least the type that requires more than 10 or 15 minutes to charge) will NOT provide the necessary incentive for masses of people to switch to EV/PHEV's, UNLESS those charging stations can provide a full battery charge as quickly as filling a tank of gas AND are plentiful enough that people don't have to worry that the charging station will be occupied when they need it. The fact is that the battery range of EV/PHEV's have improved dramatically in the past few years to the point that the majority of people can drive to work and/or do their errands without range anxiety and don't need to charge to complete their trips.

I suspect that this is the main reason why I often see so many public charging stations NOT being used, including the 5 or 6 Tesla stations and single regular station at Healthy Living, which I understand just received a grant to install yet more stations...

In summary, if we're REALLY going to encourage large numbers of Vermonters to switch to EV and PHEV's, we should instead be spending money to:

1. Substantially reduce the purchase or lease cost of these vehicles by exempting them from the sales tax and/or by providing significant monetary grants/incentives to perspective buyers.
2. Providing grants or incentives to reduce the cost of buying and installing 220 V charging stations at single and multiple family residences.

Thanks for your work,

Steven Wisbaum
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