Top Five Things to Know About Charging an EV

1. **How will I charge my Electric Vehicle (EV)?**
“Fueling” your EV will be similar to phone charging: plugging in overnight at home several times a week as a matter of habit. For longer trips, public chargers are becoming available that allow EV drivers to charge their vehicles in under 15 minutes. Drivers can plug their cars into a regular wall outlet for basic (low power) charging, or for a few hundred dollars, purchase a higher power home charger that will ensure a full charge overnight.

2. **What if I need to charge away from home?**
In those cases, public chargers allow EVs to “fill up” while on the road. Some public chargers are lower power and require several hours for a full charge. High-speed chargers, DC Fast Chargers (DCFC), recharge your battery to 80% in about 30 minutes, with more advanced DCFCs being deployed cut quick charging time to 15 minutes or less. New Jersey currently has over 480 electric vehicle chargers.

3. **How much does it cost to charge an EV at home?**
In almost all cases, using electrically will be a much lower cost than using gasoline – typically about two-thirds cheaper (at current prices). For example: a 2017 Chevrolet Bolt has a range of 238 miles, which requires about 60 kW-hours of battery energy. With the average residential electricity rate of 11.7 cents/ kWh, it cost about $7.00 to cover 238 electrically fueled miles. Compare this with $27 to fuel that same 238 miles of range with gasoline (assuming gas at $2.45/gallon and average fuel efficiency of 21.6 miles/gallon).

4. **How will I charge my EV if I live in a multi-family residence?**
EV charging is more challenging in these situations. Some EV owners can make arrangements to charge their EV at work. Many companies are now considering workplace charger installations for their employees. In that case, all the “routine charging” normally done at home can then be done at the workplace. Meanwhile, efforts are building in NJ for EV charging solutions in these types of settings.

5. **How far can I drive on one charge?**
Today most EVs have a range of more than 100 miles, and new vehicles offer more than 200 miles of range. Some plug-in hybrid-EVs (PHEVs) include a small gasoline engine that provide electricity for the car when the battery is exhausted. These vehicles have the same range as typical gasoline vehicles today (300-400 miles). Note that PHEVs are not the same as hybrid vehicles. A hybrid vehicle is not designed for plugging in to recharge the battery. All the recharging of the battery for hybrid vehicles is done internally, within the vehicle.

For more information, please visit:
www.chargevc.org/resources/useful-documents/
EV Myths: Busted!

1. **Myth:** EVs can't go very far.

**Busted:** New, affordable EVs travel three-to-four times as far on a single charge as earlier vehicles. The Chevy Bolt, for example, typically provides about 238 miles of travel, far in excess of the approximately 40 miles most people drive each day. There are also Plug-in electric hybrid vehicles (PHEVs, featuring small gasoline engine that automatically engage if the electric range is exceeded.

2. **Myth:** EVs are expensive compared with traditional gasoline vehicles.

**Busted:** Newly announced vehicles from major suppliers like Chevy and Nissan have MSRP's close to the average US vehicle cost. Federal incentives - currently a $7,500 tax credit - can make new EVs even less expensive than the average car purchase. Costs to operate the car are also considerably less: EVs: 5-cents a mile or less; conventional cars: about 11-cents a mile. EVs also have minimal maintenance costs with fewer moving parts.

3. **Myth:** There are not as many public EV charging locations as gas stations. I will have difficulty charging my EV while away from home.

**Busted:** Most EV "fueling" will happen at home. If needed, public chargers are becoming widely available, and typical charge times are becoming much shorter, similar to the time it takes to fill up with gasoline.

4. **Myth:** EVs are just fancy golf carts, not real cars that meet my travel needs.

**Busted:** EVs offer compelling vehicle designs and many include high tech features with the driving range needed to meet typical driver expectations. And, the biggest surprise of all, they are really fun to drive, offering exceptional performance!

5. **Myth:** Only tree-huggers that care about environmental impact are interested in EVs.

**Busted:** In NJ, every electrically fueled mile is 70-80% cleaner than a gasoline fueled mile. However, many EV drivers today love their EVs for other reasons: lower operating costs, and the cars are fun to drive with all the latest high tech features. Societal benefits include reductions in petroleum use, cleaner air, and lower electricity costs for everybody.

**Now go take an EV for a test drive!**

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