



# IS AN ELECTRIC VEHICLE RIGHT FOR YOU?

As your Touchstone Energy cooperative, we want to be your source of power and information. Since electric vehicles are rapidly becoming more widely available, we put together this information to help answer questions you might have. Contact us for more information about electric vehicles. See other fact sheets in this series.

Consider the following questions if you are thinking of purchasing an electric vehicle but aren't sure if one suits your lifestyle or budget.

### 1. WHAT ARE YOUR TYPICAL DAILY DRIVING PATTERNS? (CONSIDER ALL THAT APPLY TO YOUR SITUATION.)

- \_\_\_ I commute 40 or fewer miles each day.
- \_\_\_ I commute more than 40 miles per day.
- \_\_\_ I take frequent long trips.
- \_\_\_ I rarely take long trips.



#### TO CONSIDER

- The average driver clocks in 40 miles each day commuting to work or running errands. If that aligns with your daily mileage, consider a battery electric vehicle (BEV). Charging overnight should keep it ready for your commute. The stated range of most BEVs is 60-100 miles per charge, with a range of 200 miles per charge or more coming in 2017. However, to ensure your needs are met, assume your range will be somewhat less.
- Even if you have frequent longer trips, or have a few longer daily drives, you may consider a BEV as a second vehicle.
- If you average more miles per day and/or take frequent long trips, a Plug-in Hybrid Electric Vehicle (PHEV) may meet your needs. PHEVs use a combination of an electric motor and gasoline engine to provide good fuel economy, a longer range and the ability to keep driving after the battery is depleted. They do need to be plugged in to recharge, but you can operate in gas-only mode when necessary. Another option is a hybrid. While hybrids don't offer some of the benefits of a BEV, you'll get better fuel mileage than with a conventional vehicle without plugging in.

#### 2. HOW WILL YOU CHARGE THE VEHICLE?

\_\_\_ I have access to a 120-volt outlet in an area where I can recharge the car (or am willing to add one in a convenient location), and can charge overnight.

\_\_\_ I have access to a 240-volt outlet in an area where I can recharge the car (or am willing to add one in a convenient location).

\_\_\_ My place of employment offers access to a charging station.

\_\_\_ Areas where I shop or spend time (public buildings, malls, etc.) offer access to a charging station.

\_\_\_ I prefer a vehicle that does not require battery charging.

#### **TO CONSIDER**

- Battery electric vehicles operate solely on electric power, and you must recharge the vehicle. The battery in Plug-in Hybrid Electric Vehicles must be recharged also, but the vehicle can operate on gas if the charge runs out. Hybrid vehicles do not need charging: the smaller battery is recharged during driving.
- A 120-volt outlet in your garage or driveway will handle overnight charging if you are driving only about 40 miles per day and have a full 8 hours overnight to recharge the battery. If you drive more and charge less, you may not be able to get a full charge.
- If you want more rapid charging, you will need a 240-volt outlet.



#### 3. HOW MUCH DO YOU PLAN TO SPEND ON A VEHICLE?

\_\_\_ I plan to purchase a new vehicle.



#### **TO CONSIDER**

- Purchase price for electric vehicles may be somewhat higher than a standard vehicle. In 2016, base prices for a BEV ranged from \$22,000 at the low end to \$125,000 for a top-end vehicle. The most popular brands ranged from \$26,000 to \$32,000.
- Leases for electric vehicles in early 2016 could be obtained below \$200 per month for some vehicles and situations.
- With electric vehicles, the premium paid to purchase the vehicle is offset by the lower cost to operate and maintain,
- You may receive a federal tax credit for BEVs and PHEVs.



#### 4. HOW MUCH WILL YOU SPEND ON MAINTENANCE AND OPERATION OF AN ELECTRIC VEHICLE VS. A GAS-POWERED VEHICLE?

The purchase price does not tell the entire story. With the purchase of any type of vehicle, operating cost and maintenance expenses should be calculated into the total cost of owning the vehicle. Maintenance and operating costs are generally less for electric vehicles than for gasoline powered cars. Start with what your current vehicle is costing you in operating and maintenance; then compare it to alternatives.

\_\_\_ I know how many miles I drive per year and how much I spend on maintenance.

\_\_\_ I am curious if I will save money using electricity rather than gas.

\_\_\_ I am concerned that electric vehicles cost more to maintain.

#### **TO CONSIDER**

- Energy costs to operate a typical BEV run \$590 a year, and PHEVs cost about \$720 a year in energy costs. (For details, see Overview of Flectric Vehicles in this series.)
- Maintenance costs will be far less in a BEV, as there are few moving parts and the design is less complex than other vehicles. PHEVs do have both electric and combustion components, but they may still have lower maintenance costs than a conventional vehicle. That's because some components, such as the brakes, get less wear than those on conventional gas-powered vehicles. Hybrids are similar, with both combustion and electric components.
- And don't forget a federal tax credit of up to \$7,500 may be available. The amount depends on the battery size installed in the car. You may also qualify for additional "perks" offered in your area, such as a lower rate from your cooperative for charging overnight, free parking in some communities and access to special commuter lanes on some highways.



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