

trips to the gas station. When you get home at the end of the day, simply plug in and your EV will be ready to go the next morning. It's easy to set a timer for starting and ending the charging session during the night. Most of the time you'll make it to and from your destination without charging outside your home. Although if you do need to charge up while you're out, there are various charging station options in the region as shown in the PlugShare app.

## Myth 7 *I won't be able to charge an electric vehicle when I'm away from my home*

As of May 2017, there are 35 charging stations in the Tahoe-Truckee region, with many more planned to open soon. Many of the new stations will be fast chargers conveniently located along the major corridors that connect you to different regional centers. Find the regional charging locations at: [TahoeAlternativeFuels.com](http://TahoeAlternativeFuels.com).



## Myth 8 *Electric vehicles aren't safe for me and my family to drive*

EVs must undergo the same rigorous safety testing as gasoline vehicles, as well as EV-specific safety standards, such as limiting chemical spillage from batteries and securing batteries during a crash. EVs consistently earn good safety ratings from the National Highway Traffic Safety Administration. EVs rate as good, if not better than, their gasoline counterparts. In many EVs, the battery packs are located beneath the vehicle creating a lower center of gravity and safer handling.

## Myth 9 *I'll have to sacrifice performance if I drive an electric vehicle*

It is time to rethink the "gas pedal." EVs have great performance: they deliver instant torque and acceleration, and consistently get high ratings for handling. EVs can go from 0 to 60 mph much faster than many conventional gas-powered vehicles, making them fun and zippy to drive around. You will not have to sacrifice performance when you choose to drive electric.

## Myth 10 *It is too cold for an electric vehicle where I live*

EVs work in all types of weather. The performance of all vehicles is impacted by extreme temperatures. Conventional vehicles use waste heat to help warm the cabin, but because all-electric vehicles do not generate waste heat, an electric heater must be used and this impacts the range. At very low temperatures (0-20°F), EV range can be reduced by 20-40%. When plugged in, some EVs offer pre-heating settings for the cabin to reduce range loss. Manufacturers are working to develop technological solutions to address weather impacts such as better insulating windows. To maximize range in cold weather, consider heating the cabin before starting your trip and using only heated seats.

## Takeaway

EVs are a practical, green, safe, and fun way to travel. Hopefully we've sparked your interest. Please visit [TahoeAlternativeFuels.com](http://TahoeAlternativeFuels.com) to get plugged into a myriad of resources on all things EV and click on

[Contact Us](#) to ask questions and learn more!



# Electric Vehicles MYTHS VS FACTS

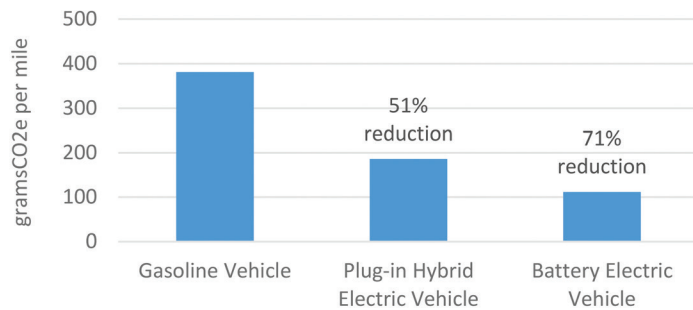
Find out the facts about 10 common electric vehicle (EV) myths and learn about new advancements rapidly underway to transform transportation.



## Myth 1 *Electric vehicles are worse for the environment than gasoline vehicles*

The Union of Concerned Scientists compared the global warming emissions of gasoline and electric-powered vehicles through every stage of their lives (from manufacturing to disposal) and found EVs to be greener and cleaner. Although EVs emitted slightly more at manufacturing, these were offset after six to 16 months of average driving. EVs emit far fewer greenhouse gases overall since they are powered by electricity, a fuel far less carbon intensive than petroleum. In the Tahoe-Truckee region, most electricity is made from natural gas and renewable energy sources such as wind, solar, geothermal, and hydroelectric power. Renewable energy will increase to meet state requirements for Nevada utilities to be 25% renewable by 2025 and California utilities to be 50% renewable by 2030.

### Greenhouse Gas Emissions Comparison



Source: Union of Concerned Scientists

## Myth 2 *An electric vehicle is impractical for my family*

With over 30 different models available today, there is no doubt that the EV market is growing rapidly. Most EVs you might have seen on the road over the past few years are compact or standard-sized, like the Nissan LEAF or Chevy Volt. However, automakers are now producing EVs that have more room for families and gear. The Tesla Model X is a fully electric all-wheel-drive crossover SUV that gets up to 250 miles on a single charge. BMW, Mercedes, Porsche, and Volvo all offer mid- to large-sized plug-in hybrid SUVs that can travel up to 17 miles on electric before the gasoline engine kicks in.

In 2017, two new larger sized EVs were released at more affordable price points:

### Chrysler Pacifica PHEV



### Mitsubishi Outlander PHEV



Chrysler now offers a plug-in hybrid electric version of its Pacifica minivan. It holds seven people, has 30 miles of electric range, and a fuel efficiency of 30 mpg when the gasoline engine kicks in.

The SUV, to be released in summer of 2017, has all-wheel drive and SUV-sized cargo space. It has sufficient all-electric range for most daily commutes and can travel long distances on its hybrid gasoline engine.

More spacious, family-friendly vehicle options are expected and the diversity of models is expanding rapidly to better fit your lifestyle. Check out [TahoeAlternativeFuels.com](http://TahoeAlternativeFuels.com) for the newest EV offerings.

## Myth 3 *I won't save any money by switching to an electric vehicle*

While you still pay for electricity to charge your EV, the cost to fill up is substantially cheaper. Both Liberty Utilities and NV Energy offer special discounted electricity rates for EV owners charging their car overnight. Using these "time of use" rates, charging costs between

1.5 and 3¢/mile (for a Nissan LEAF), while a Toyota Corolla costs 9¢/mile when gas costs \$3/gallon. That's an average savings of 75% on fuel costs. EVs also require less maintenance, so that means fewer trips to the mechanic, saving you both time and money. Additional information can be found at: [TahoeAlternativeFuels.com/resources](http://TahoeAlternativeFuels.com/resources).

## Myth 4 *I will have to replace the battery in a few years*

All new EVs sold in California are required to have a 10-year/150,000-mile battery warranty. Outside of California, warranties range by vehicle manufacturer and are typically 8-10 years. This means that you won't have to worry about battery replacement costs for the typical vehicle lifetime. After 10 years, you most likely would only need to replace a few cells of the battery, rather than the entire thing. Lastly, EV batteries are likely to be recycled or reused due to their high residual value.

## Myth 5 *I drive too much and too far for an electric vehicle to make sense for me*

Range anxiety—the fear of the battery running out—is becoming a thing of the past. Manufacturers are making longer range EVs with over 200 miles more affordable, like the new Chevy Bolt. The average trip distance regionally is less than 20 miles, which is well within the range of most EVs. Improved access to public charging stations means that finding a place to plug in while you're out and about is becoming easy. If you're often traveling long distances, then a plug-in hybrid EV is also a good solution since you can keep driving with the gasoline engine once the battery has lost its charge.

## Myth 6 *Owning an electric vehicle and having to charge it all the time is inconvenient*

Owning an EV is more convenient than people think, even in comparison to a conventional vehicle. Most charging (70-90%) is done from the comfort of your own home – which means no more