A CONSUMER’S GUIDE TO PLUG-IN ELECTRIC VEHICLES
Plug-in electric vehicles are arriving in dealer showrooms across the country, bringing new car buyers a high-tech, clean vehicle option. Today, major automakers offer 24 models. Soon, American consumers will have even more choices as the industry invests in technologies to improve fuel economy, reduce emissions, and advance vehicle connectivity.

Plug-in electric cars offer performance, comfort, and safety. With plug-in cars, drivers benefit from convenient home charging using domestic electric fuel and save money over time. At the U.S. national average price of 12.5 cents per kilowatt-hour (kWh), buying electricity is roughly equivalent to buying gasoline at $1 per gallon. Drivers can save even more with time-of-use rates offered by some utilities.

Displacing gasoline with electricity cuts petroleum use and emissions, which benefits public health. Electrifying the transportation sector can reduce greenhouse gas emissions in 2050 by 52% to 60% relative to 2015 levels.

Buyers should evaluate their own driving needs to determine how different plug-in electric vehicle technologies can work for them.

Plug-in Electric Vehicles

Plug-in electric vehicles have batteries that recharge by plugging into the electricity grid. There are two main types. Plug-in hybrid electric vehicles (plug-in hybrids) are powered by an electric motor(s) and battery paired with an internal combustion engine. Battery electric vehicles are powered by an electric motor and battery alone; they never use gasoline.

Plug-in hybrid designs differ. Most drive on electricity alone using battery energy, and after the battery is discharged, continue driving using gasoline much like conventional hybrids. (Conventional hybrids have a smaller battery and do not plug in.) Some plug-in hybrids can travel 50 miles or more on electricity before they need to be plugged in. Others travel short distances only—around 10 miles—on electricity, and their gas tanks extend total range to between 300 and 600 miles. Some designs allow the driver to choose whether to use electricity or gasoline as they drive.

Battery electric vehicles can travel farther on electricity than plug-in hybrids, but their total range is limited by their battery size. Some current models can travel more than 200 miles between charges, however, most currently have a range of 80 to 100 miles. Future models promise more range—around 300 miles.
Available Now Nationwide

These plug-in electric vehicles are available as of January 2016.

**2016 BMW i3**
The i3 battery electric vehicle is the first mass-produced car to use carbon fiber for the body (instead of aluminum or steel) to enhance strength and reduce weight.

- **EPA electric range:** 81 miles
- **Charging time:** 3.5 hours @ 240V; 20 hours @ 120V; fast-charging capable

**2016 BMW i3 REx**
A variation of the i3, the i3 REx has a small internal combustion engine to extend the car’s overall driving range. EPA categorizes it as a plug-in hybrid.

- **EPA electric range:** 72 miles
- **EPA total range (gas + electric):** 150 miles
- **Charging time:** 3.5 hours @ 240V; 20 hours @ 120V; fast-charging capable

**2016 BMW i8**
This plug-in hybrid sport coupe is the second model released under BMW’s “i” lineup. A three-cylinder engine drives the back wheels and an electric motor drives the front wheels.

- **EPA electric range:** 15 miles
- **EPA total range (gas + electric):** 330 miles
- **Charging time:** 2.5 hours @ 240V; 10 hours @ 120V

**2016 BMW X5 xDrive40e**
The X5 xDrive40e is the first plug-in hybrid production model from the core BMWV brand, and the company’s first plug-in hybrid sport utility vehicle.

- **EPA electric range:** 14 miles
- **EPA total range (gas + electric):** 540 miles
- **Charging time:** 2.75 hours @ 240V; 7 hours @120V
2016 Cadillac ELR
The ELR plug-in hybrid, which General Motors calls an extended-range electric vehicle, has a redesigned electric drive system and a performance package option.
EPA electric range: 40 miles
EPA total range (gas + electric): 340 miles
Charging time: 5 hours @ 240V; 13 to 18 hours @ 120V

2016 Chevrolet Volt
The second-generation Volt improves on the first generation with a more efficient and lighter two-motor drive design for enhanced acceleration and increased range.
EPA electric range: 53 miles
EPA total range (gas + electric): 420 miles
Charging time: 4.5 hours @ 240V; 13 hours @ 120V

2016 Ford C-MAX Energi
The C-MAX Energi is the plug-in hybrid version of the C-MAX conventional hybrid compact hatchback. An EV mode button allows the driver to choose all-electric, gas power, or a combination of both.
EPA electric range: 20 miles
EPA total range (gas + electric): 550 miles
Charging time: 2.5 hours @ 240V; 7 hours @ 120V

2016 Ford Focus Electric
The Focus Electric is a battery electric version of the Focus compact hatchback. The dashboard display on the 2016 model provides enhanced feedback to help the driver improve driving efficiency.
EPA electric range: 76 miles
Charging time: 3.6 hours @ 240V; 20 hours @ 120V
2016 Ford Fusion Energi
The Fusion Energi is a plug-in hybrid version of the Fusion midsize sedan. An EV mode button allows the driver to choose all-electric, gas power, or a combination of both.
EPA electric range: 20 miles
EPA total range (gas + electric): 550 miles
Charging time: 2.5 hours @ 240V; 7 hours @ 120V

2016 Mitsubishi i-MiEV
The i-MiEV is a battery electric subcompact city car that was introduced in the United States in 2012. MiEV is an acronym for Mitsubishi innovative Electric Vehicle.
EPA electric range: 62 miles
Charging time: 6 hours @ 240V; 14 hours @ 120V; fast-charging capable

2016 Nissan LEAF
The LEAF was the first battery electric vehicle to enter the U.S. market in late 2010. The updated LEAF comes with a 24kWh or 30kWh battery. Data listed below is for 30kWh battery.
EPA electric range: 107 miles
Charging time: 6 hours @ 240V; 26 hours @ 120V; fast-charging capable

2016 Porsche Cayenne S E-Hybrid
The Cayenne S E-Hybrid is a plug-in hybrid version of the Cayenne midsize performance crossover.
EPA electric range: 14 miles
EPA total range (gas + electric): 480 miles
Charging time: 1.3 to 2.7 hours @ 240V; 7.9 hours @ 120V
2016 Porsche Panamera S E-Hybrid

The Panamera S E-Hybrid is a plug-in hybrid version of the Panamera 4-door luxury performance sedan.
EPA electric range: 16 miles
EPA total range (gas + electric): 560 miles
Charging time: 2 to 3 hours @ 240V; 9.1 hours @ 120V

2016 Tesla Model S

The Model S is a five-door battery electric vehicle luxury sedan. It comes with different battery sizes (70kWh to 90kWh) and performance options, which affect vehicle range.
EPA electric range: 234 to 270 miles
Charging time: 4.75 to 12 hours @ 240V; 58.8 to 75.6 hours @ 120V; fast-charging capable

2016 Tesla Model X

The Model X is a battery electric vehicle that seats up to seven people in three rows. It comes with different battery sizes (70kWh to 90kWh) and performance options, which affect vehicle range.
EPA electric range: 250 to 257 miles
Charging time: 4.75 to 12 hours @ 240V; 58.8 to 75.6 hours @ 120V; fast-charging capable

2016 Volvo XC90 T8 Twin Engine

The XC90 T8 Twin Engine is the plug-in hybrid version of the XC90 performance crossover, and the company’s first plug-in electric vehicle on the market.
EPA electric range: 14 miles
EPA total range (gas + electric): 350 miles
Charging time: 2 hours @ 240V; 4 hours @ 120V
Available Now in Select Markets

Availability of some plug-in electric vehicles varies by state and manufacturer.

2016 Audi A3 Sportback e-tron
Design: Plug-in hybrid hatchback
EPA electric range: 16 miles
EPA total range (gas + electric): 380 miles
Charging time: 2.25 hours @ 240V; 8 hours @ 120V

2016 Chevrolet Spark Electric Vehicle
Design: Battery electric vehicle compact hatchback
EPA electric range: 82 miles
Charging time: 7 hours @ 240V; 18 hours @ 120V; fast-charging capable

2016 Fiat 500e
Design: Battery electric vehicle subcompact
EPA electric range: 87 miles
Charging time: 4 hours @ 240V; 24 hours @ 120V

2016 Hyundai Sonata Plug-in Hybrid
Design: Plugin hybrid sedan
EPA electric range: 27 miles
EPA total range (gas + electric): 600 miles
Charging time: 3 hours @ 240V; 9 hours @ 120V

2016 Kia Soul EV
Design: Battery electric vehicle compact SUV
EPA electric range: 93 miles
Charging time: 5 hours @ 240V; 24 hours @ 120V; fast-charging capable
2016 Mercedes-Benz B250e
Design: Battery electric vehicle hatchback
EPA electric range: 87 miles
Charging time: 3.5 hours @ 240V; 23.5 hours @ 120V

2016 Mercedes-Benz S550e
Design: Plug-in hybrid luxury sedan
EPA electric range: 14 miles
EPA total range (gas + electric): 450 miles
Charging time: 2.5 hours @ 240V; 7.3 hours @ 120V

2016 smart fortwo electric drive
Design: Battery electric vehicle subcompact
EPA electric range: 68 miles
Charging time: 6 hours @ 240V; 13 hours @ 120V

2016 Volkswagen e-Golf
Design: Battery electric vehicle hatchback
EPA electric range: 83 miles
Charging time: 4 to 7 hours @ 240V; 20 hours @ 120V; fast charging capable
# Vehicle Availability at a Glance

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Plug-in Type</th>
<th>Body Style</th>
<th>Range (miles)</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Available Now</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMW i3</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>81</td>
<td>Nationwide</td>
</tr>
<tr>
<td>BMW i3 REx</td>
<td>Plug-in hybrid</td>
<td>Hatchback</td>
<td>72/150</td>
<td>Nationwide</td>
</tr>
<tr>
<td>BMW i8</td>
<td>Plug-in hybrid</td>
<td>Sport coupe</td>
<td>15/330</td>
<td>Nationwide</td>
</tr>
<tr>
<td>BMW X5 xDrive40e</td>
<td>Plug-in hybrid</td>
<td>SUV</td>
<td>14/340</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Cadillac ELR</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>40/340</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Chevrolet Volt</td>
<td>Plug-in hybrid</td>
<td>Compact</td>
<td>53/400</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Ford C-MAX Energi</td>
<td>Plug-in hybrid</td>
<td>Hatchback</td>
<td>20/550</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Ford Focus Electric</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>76</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Ford Fusion Energi</td>
<td>Plug-in hybrid</td>
<td>Sedan</td>
<td>20/550</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Mitsubishi iMiEV</td>
<td>Battery electric vehicle</td>
<td>Subcompact</td>
<td>62</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Nissan Leaf</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>107</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Porsche Cayenne S E-Hybrid</td>
<td>Plug-in hybrid</td>
<td>Crossover</td>
<td>14/480</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Porsche Panamera S E-Hybrid</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>16/560</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Tesla Model S</td>
<td>Battery electric vehicle</td>
<td>Luxury sedan</td>
<td>23/470</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Tesla Model X</td>
<td>Battery electric vehicle</td>
<td>Crossover</td>
<td>250/257</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Volvo XC90 T8 Twin Engine</td>
<td>Plug-in hybrid</td>
<td>SUV</td>
<td>14/350</td>
<td>Nationwide</td>
</tr>
<tr>
<td>Audi A3 Sportback e-tron</td>
<td>Plug-in hybrid</td>
<td>Hatchback</td>
<td>16/380</td>
<td>Select Markets</td>
</tr>
<tr>
<td>Chevrolet Spark</td>
<td>Battery electric vehicle</td>
<td>Compact hatchback</td>
<td>82</td>
<td>Select Markets</td>
</tr>
<tr>
<td>Fiat 500e</td>
<td>Battery electric vehicle</td>
<td>Subcompact</td>
<td>87</td>
<td>Select Markets</td>
</tr>
<tr>
<td>Hyundai Sonata</td>
<td>Plug-in hybrid</td>
<td>Sedan</td>
<td>27/600</td>
<td>Select Markets</td>
</tr>
<tr>
<td>Kia Soul EV</td>
<td>Battery electric vehicle</td>
<td>Compact SUV</td>
<td>93</td>
<td>Select Markets</td>
</tr>
<tr>
<td>Mercedes-Benz B250e</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>87</td>
<td>Select Markets</td>
</tr>
<tr>
<td>Mercedes-Benz 5550e</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>14/450</td>
<td>Select Markets</td>
</tr>
<tr>
<td>smart fortwo electric drive</td>
<td>Battery electric vehicle</td>
<td>Subcompact</td>
<td>68</td>
<td>Select Markets</td>
</tr>
<tr>
<td>Volkswagen e-Golf</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>83</td>
<td>Select Markets</td>
</tr>
<tr>
<td><strong>Coming Soon</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercedes-Benz GLE550e</td>
<td>Plug-in hybrid</td>
<td>SUV</td>
<td>TBA</td>
<td>Early 2016</td>
</tr>
<tr>
<td>BMW 330i</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>22/370</td>
<td>Spring 2016</td>
</tr>
<tr>
<td>BMW 740e xDrive</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>23/TBA</td>
<td>Summer 2016</td>
</tr>
<tr>
<td>Audi Q7 e-tron</td>
<td>Plug-in hybrid</td>
<td>SUV</td>
<td>25/TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Cadillac CT6</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>30/TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Chevrolet Bolt</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>200</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Chrysler Pacifica Hybrid</td>
<td>Plug-in hybrid</td>
<td>Minivan</td>
<td>30/TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Ford Focus Electric (Gen. 1+)</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>100</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Kia Optima</td>
<td>Plug-in hybrid</td>
<td>Midsize sedan</td>
<td>TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Mitsubishi Outlander</td>
<td>Plug-in hybrid</td>
<td>Crossover</td>
<td>TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Toyota Prius Plug-in (Gen. 2)</td>
<td>Plug-in hybrid</td>
<td>Hatchback</td>
<td>TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Volvo V60</td>
<td>Plug-in hybrid</td>
<td>Wagon</td>
<td>TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td>Volvo S90 T8 Twin Engine</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>TBA</td>
<td>Late 2016</td>
</tr>
<tr>
<td><strong>Coming Later and Concept Cars</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMW X3 edrive</td>
<td>Plug-in hybrid</td>
<td>Crossover</td>
<td>20/TBA</td>
<td>2017</td>
</tr>
<tr>
<td>BMW i3 (Gen. 1+)</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>120</td>
<td>2017</td>
</tr>
<tr>
<td>Hyundai Ioniq</td>
<td>Battery electric vehicle and Plug-in hybrid</td>
<td>Sedan</td>
<td>TBA</td>
<td>2017</td>
</tr>
<tr>
<td>Kia Soul EV (Gen. 1+)</td>
<td>Battery electric vehicle</td>
<td>Compact SUV</td>
<td>TBA</td>
<td>2017</td>
</tr>
<tr>
<td>Tesla Model 3</td>
<td>Battery electric vehicle</td>
<td>Sedan and crossover</td>
<td>200</td>
<td>2017</td>
</tr>
<tr>
<td>VW e-Golf (Gen. 1+)</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>108</td>
<td>2017</td>
</tr>
<tr>
<td>VW CrossCoupé</td>
<td>Plug-in hybrid</td>
<td>SUV</td>
<td>20/TBA</td>
<td>2017</td>
</tr>
<tr>
<td>VW Tiguan</td>
<td>Plug-in Hybrid</td>
<td>Crossover</td>
<td>TBA</td>
<td>2017</td>
</tr>
<tr>
<td>Audi etron Quattro</td>
<td>Battery electric vehicle</td>
<td>SUV</td>
<td>300</td>
<td>2018</td>
</tr>
<tr>
<td>BMW 35</td>
<td>Plug-in hybrid</td>
<td>Luxury sedan</td>
<td>25/300</td>
<td>2018</td>
</tr>
<tr>
<td>Nissan Leaf (Gen. 2)</td>
<td>Battery electric vehicle</td>
<td>Hatchback</td>
<td>200–300</td>
<td>2018–2020</td>
</tr>
<tr>
<td>Porsche Poussin</td>
<td>Battery electric vehicle</td>
<td>Luxury sedan</td>
<td>220</td>
<td>2018</td>
</tr>
<tr>
<td>Subaru Crosstrek XV</td>
<td>Plug-in hybrid</td>
<td>Crossover</td>
<td>TBA</td>
<td>2018</td>
</tr>
<tr>
<td>Jaguar F-Pace</td>
<td>Battery electric vehicle</td>
<td>Crossover</td>
<td>300</td>
<td>2019</td>
</tr>
<tr>
<td>VW Buddle</td>
<td>Battery electric vehicle</td>
<td>Van</td>
<td>233</td>
<td>2019</td>
</tr>
<tr>
<td>Porsche Mission E</td>
<td>Battery electric vehicle</td>
<td>Sports car</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>VW Phaeton</td>
<td>Battery electric vehicle</td>
<td>Luxury sedan</td>
<td>TBA</td>
<td>TBA</td>
</tr>
</tbody>
</table>

1. Range for battery electric vehicles is all-electric range. Range for plug-in hybrids is all-electric/combined (electric + gas) range. On vehicles available now, source is [www.fueleconomy.gov](http://www.fueleconomy.gov). On future cars, information source is manufacturer or industry media. Subject to change.

2. Cars that are currently available are listed alphabetically by manufacturer. Future cars are listed chronologically by their expected market arrival date, then alphabetically by manufacturer.

3. Information source on availability of future cars is manufacturer or industry media. Subject to change.
Answers to Important Questions

How far do plug-in electric vehicles go on a charge?

Depending on battery size and vehicle design, plug-in hybrids can typically drive from 11 to 53 miles between charges, and about 300 to 600 miles on gasoline. If the vehicle is plugged in every day as recommended, often at home or at work, it may be possible to drive 1,000 to 2,000 miles or more between gasoline fill-ups.

The advertised range of battery electric vehicles varies by model from about 60 to 270 miles, but most current models are in the 80- to 100-mile range. Each driver’s experience is different. Range depends heavily on the driver’s individual driving habits, weather, and environmental conditions. A new battery electric vehicle driver can to expect to achieve about 80% of the advertised range.

Studies show that limited range is less problematic for most battery electric vehicle drivers than they initially expected. Most drivers find their daily driving is well within the vehicle’s range. On days with more driving, they use public or workplace charging during the day or swap cars with another member of their household. Many drivers become comfortable enough with the vehicle’s range to drive for a couple of days between charges.

What environmental factors could affect vehicle performance?

During very hot or very cold weather, and in certain driving conditions, energy that would otherwise power the plug-in electric vehicle is needed for interior air-conditioning, heating, and window defrosting or defogging. Although this energy use is much less than that required to actually move the car, it may reduce driving range. To balance these extreme temperature effects, plug-in electric vehicles can be programmed to pre-condition the car interior and battery while plugged in. Automakers continue to make progress on technologies that reduce these effects. Windshield wipers, headlights, and similar accessories do not have a significant effect on range.

What styles of plug-in electric vehicles are available, and where?

Most currently available plug-in electric vehicles are compact hatchbacks or sedans, but mid-size sedans, crossovers, and SUVs are coming soon. The plug-in electric vehicle market will evolve the way the hybrid car market developed during its first decade; conventional hybrids are now available in nearly all vehicle classes.

Some plug-in electric vehicle models are available now nation-wide. Others are available only in California, Oregon, and some Northeast states. With new technologies, manufacturers face early production limitations and need to train and equip dealers and service technicians, so they typically roll out plug-in electric vehicles in select markets, then expand availability in response to market demand and readiness.

How, when, and where will I charge?

You can charge your plug-in electric vehicle’s battery any time you have access to an outlet or charging station—but you will probably find it most convenient to charge at home, overnight. Many utilities offer lower time-of-use or special plug-in electric vehicle rates to encourage charging overnight when electricity is plentiful.

You can plug into a standard 120V outlet (like most household appliances) using the cord that comes with the car, or you can install a 240V charging station for faster charging. Charging time will vary based on the car’s battery size and onboard charger capacity, and the electrical circuit’s capacity. Dedicated 240V charging stations provide 3kW to 7kW—about the same power draw as a residential clothes dryer or an air-conditioning system. All vehicles except Tesla are equipped with standard connectors. (Tesla has its own connector.)

Sometimes you may need to charge away from home. Many cities, states, and private companies are establishing public and workplace charging locations. Nationwide, this charging network is growing rapidly, especially in markets where plug-in electric vehicle sales are robust. Several subscription charging services offer smartphone apps that communicate with your car’s charging software, or locate and guide you to the nearest charging station. Despite the charging network growth, every region is different, and some places have limited or no public infrastructure.

In addition to 120V and 240V charging, fast-charging networks are expanding across the country. A fast charger can charge a properly equipped battery electric vehicle to 80% full in 30 minutes or less. Not all vehicles, however, are fast-charging capable. Tesla has developed its own Supercharger fast-charging network exclusively to serve Tesla drivers.
What incentives are available?

The federal government offers a tax credit of up to $7,500 toward the purchase of a qualified plug-in electric vehicle. Many states and some counties offer vehicle purchase incentives and rebates. Other incentives are available for the purchase or installation of a charging station. In some urban areas, plug-in electric vehicles are granted access to carpool lanes with a single driver. Other perks, such as free or priority parking and free charging are available in many cities. These incentives are designed to entice consumers to consider purchasing a plug-in electric vehicle. They are subject to limitations and may change over time.

What should I consider in making a purchase?

Consider your driving needs and lifestyle. If you have only one car, or often drive long distances, a plug-in hybrid could be a good choice. With their back-up internal combustion engine, plug-in hybrids provide a worry-free transition to electric-drive vehicles. If you have a second place to charge during the day, typically at work, you can effectively double the electric range of your plug-in hybrid.

If you have a predictable commute, access to a second car for long trips, or if the idea of a gasoline-free driving experience appeals to you, a battery electric vehicle could be a good choice. Battery electric vehicles have larger batteries than plug-in hybrids and can usually drive more electric miles per day. Their limited range, however, requires you to carefully consider your needs. If you have access to workplace or public charging, you may be able to charge when necessary, alleviating any range concerns.

Consider costs and benefits. With manufacturer lease options, utility time-of-use rates, and government purchase incentives, plug-in electric vehicles can be less expensive to operate over their lifetime despite costing more at first. For more information, read EPRI publication, “Total Cost of Ownership for Current Plug-in Electric Vehicles: Update to Model 2013 and 2014 Model Year Vehicles” (Product ID 3002004054).

Consider environmental benefits. Plug-in electric vehicles have lower emissions than gasoline-powered vehicles, even in areas where much of the electricity is generated by power plants that use fossil fuels such as coal or natural gas. For more information, read EPRI publication, “Environmental Assessment of Plug-In Hybrid Electric Vehicles” (Product ID 1015325). For detailed information, consider the three-volume EPRI-NRDC study, “Environmental Assessment of a Full Electric Transportation Portfolio” (Product IDs 3002006875, 3002006876, and 3002006880).

How can I learn more?

Explore automakers’ websites for product updates and check your local electric utility website for information about plug-in electric vehicles. Other sources:

Electric Drive Transportation Association
www.electricdrive.org and www.goelectricdrive.com

U.S. Dept. of Energy Alternative Fuels Data Center
www.afdc.energy.gov/fuels/electricity.html

U.S. Dept. of Energy Fuel Economy Information
http://www.fueleconomy.gov/

Plug In America
www.pluginamerica.org
The Electric Power Research Institute, Inc. (EPRI, www.epri.com) conducts research and development relating to the generation, delivery and use of electricity for the benefit of the public. An independent, nonprofit organization, EPRI brings together its scientists and engineers as well as experts from academia and industry to help address challenges in electricity, including reliability, efficiency, affordability, health, safety and the environment. EPRI also provides technology, policy and economic analyses to drive long-range research and development planning, and supports research in emerging technologies. EPRI members represent 90% of the electric utility revenue in the United States with international participation in 35 countries. EPRI's principal offices and laboratories are located in Palo Alto, Calif.; Charlotte, N.C.; Knoxville, Tenn.; and Lenox, Mass.

Together...Shaping the Future of Electricity