



CONSIDER AN ELECTRIC VEHICLE

Now is a great time to consider purchasing or leasing an electric vehicle. State incentives and federal tax credits can reduce the upfront cost in addition to saving money on fuel and operating costs. Electric vehicles are quieter, operate more smoothly, and accelerate more quickly than internal combustion vehicles. You can charge at home or at one of many public charging stations in and around Rochester.

What is an electric vehicle?

There are two main types of electric vehicles. Plug-in Hybrid Electric Vehicles (PHEV) are vehicles that run on gas and electric from a battery. Electric vehicles (EV) (or BEV) run purely on electricity from a battery.

Many EVs are now on the market and many car manufacturers are working on developing new models.

Save Money

Although EVs generally cost more than internal combustion vehicles, state and federal incentives may lower the purchase cost. New York State offers a rebate of \$500 to \$2,000, depending on the all-electric range of the vehicle, for the purchase or lease of an electric vehicle. A federal tax credit of up to \$7,500 for many vehicles can reduce the up-front cost even more.

The cost of electricity to charge the vehicle's battery is about one-third the cost of purchasing gasoline for a similar vehicle. For example, at a price of \$3 per gallon, the cost to operate a gasoline-powered vehicle that can travel 30 miles per gallon of fuel is approximately 10 cents per mile. At 10 cents per kilowatt hour, a typical electric vehicle costs approximately 3 cents per mile.

In addition to saving money on fuel, EVs have up to 35% lower operating costs. Because EVs use a simpler electric drivetrain and have fewer moving parts than internal combustion engines, oil changes are not required and parts require less frequent replacement.


Use [NYSEERDA's calculator](#) to compare the costs of buying and operating an electric vehicle (EV) with a gasoline vehicle of your choice.

Innovative Technology

EVs are more efficient than gas-powered engines, converting about 60% of the electrical energy from the grid to power at the wheels in comparison to about 20% for the energy stored in gasoline. The electric motor also provides performance benefits including a quieter, smoother operation, and stronger acceleration.

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2031
MOVING FORWARD

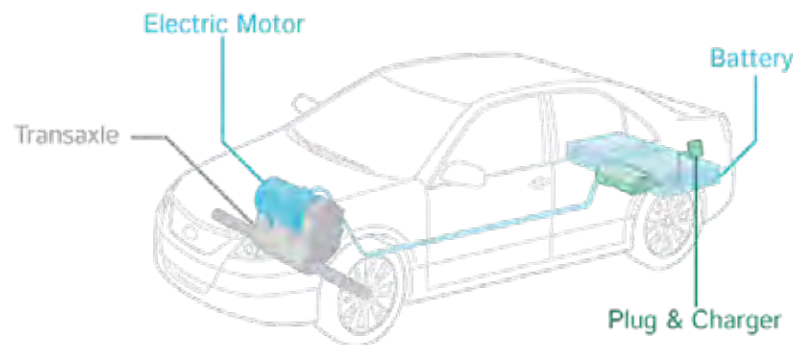
Believe.

 City of Rochester, NY
Lovely A. Warren, Mayor
Rochester City Council

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Battery Electric Vehicle (BEV)



*Source: www.rochesterevs.com/technology-innovation

Convenient Charging

The battery that powers electric vehicles needs to be charged periodically. The “range” of electric car batteries varies from 110 for a Mini Cooper to 350 miles for a Tesla.

Many EV owners charge their vehicles at home by plugging in to a regular (120v) electric outlet (Level 1.) This type of charge takes several hours for a full charge. A Level 2 (240-volt) charging station charges twice as fast but requires a 240-volt outlet similar to those used for clothes dryers.

RG&E offers EV owners a special electricity delivery rate with lower costs for nighttime use. This rate would benefit drivers who charge their vehicles overnight and have low electricity usage during the day. Contact RG&E at customer_service@rge.com for more information.

Away from home, drivers can charge at one of the many public charging stations the City has installed, or at one of many privately operated stations. Most drivers use a service or app such as [ChargePoint](#) or [PlugShare](#) to locate an available charging station nearby. For longer-distance travel, several Fast Charging (DC level 3) are under construction along the NYS

Environmental Benefits

Plug-in electric vehicles can help improve air quality because they have zero (or very limited) tailpipe emissions. Electric vehicles do not emit pollutants such as carbon dioxide, carbon monoxide, sulfur dioxide, and nitrogen oxides from their tailpipes. As an increasing amount of electricity generated in New York State is from renewable sources, a switch to electric vehicles will significantly reduce our community’s greenhouse gas emissions.