

# Is it time for a plug-in hybrid vehicle?

August 26 2020, by Reese Counts Of Edmunds

---



This photo provided by FCA shows the Chrysler Pacifica Hybrid, a plug-in hybrid minivan that has both a gasoline engine and hybrid system. It can drive for around 30 miles on electricity alone. (Courtesy of Fiat Chrysler via AP)

Plug-in hybrid electric vehicles—typically abbreviated as PHEVs—make up a very small percentage of vehicle sales, but they can be a smart pick for a certain kind of shopper.

Consider this scenario: You want to buy a significantly more fuel-efficient [vehicle](#) than what you have now but can't fully commit to a pure electric vehicle such as a Tesla. Perhaps you're worried about long battery charging times or have range anxiety. What should you do? A PHEV could be the solution.

A PHEV is essentially a [hybrid vehicle](#)—think a Toyota Prius—with two key modifications: a larger-capacity battery pack and a charge port that allows you to recharge the battery with a power cord. A PHEV still has a gasoline engine but is able to go a short distance on pure electric power without ever using the engine. That distance is typically 20 to 40 miles, depending on the vehicle.

The gasoline engine takes over when the battery runs out, giving a PHEV the flexibility of any other gas-powered car to take long trips and fill up at gas stations. While plug-in hybrids aren't as efficient as [electric vehicles](#), they do use less gas than their traditional gas or hybrid counterparts.

Buying a PHEV isn't without downsides. They tend to cost more than traditional hybrid vehicles, even when you take local and federal tax incentives into account. And models that are based on existing gasoline-powered cars typically lose some utility or cargo space because of the larger battery pack.

Still, PHEVs can make sense for people who typically have short daily commutes and have the ability to plug in overnight at home. The more frequently you can recharge your PHEV, the more fuel-efficient it will be.

Here are three of Edmunds editors' favorite plug-in hybrids. Note that the prices below include destination charges but don't factor in available federal or state tax credits or incentives, which can potentially save you

thousands of dollars.



This photo provided by Toyota shows the RAV4 Prime, a plug-in hybrid crossover SUV with all-wheel drive and a battery pack. It offers an estimated 42 miles of electric-only range, among the best in the class. (Courtesy of Toyota Motor Sales U.S.A. via AP)

## 2020 CHRYSLER PACIFICA HYBRID

Starting MSRP: \$41,490

EPA-estimated electric range: 32 miles

EPA gas engine estimate: 30 mpg combined

The name for the Pacifica Hybrid is a little misleading. It's a PHEV, and there isn't a regular hybrid version. Beyond that, it takes everything Edmunds likes about the regular Pacifica—a premium-looking and well-designed interior, a comfortable ride and great utility—and adds an estimated 32 miles of all-electric range. No other PHEV offers as much space for people and cargo as the Pacifica. The [plug-in hybrid](#) powertrain is smoother than the standard Pacifica's and offers better fuel economy, even after the battery runs out of juice.

The top-rated Pacifica Hybrid isn't perfect, however. It doesn't have the regular Pacifica's versatile Stow 'n Go second-row seats that fold flat into the floor because Chrysler's designers needed space for the hybrid battery. And when the [gasoline engine](#) is running, the hybrid is mildly louder than the standard model.

## 2021 TOYOTA RAV4 PRIME

Starting MSRP: \$39,275

EPA-estimated electric range: 42 miles

EPA gas engine estimate: 38 mpg combined

The Toyota RAV4 Prime sits just below the Pacifica Hybrid in Edmunds rankings. The Prime designation means a plug-in hybrid powertrain. It offers an estimated 42 miles of electric-only range, among the best in the class. All-wheel drive is standard, which can give you extra traction on snowy or icy roads. The Prime is comfortable and practical, just like a regular RAV4. It's also surprisingly quick to accelerate.





This photo provided by Volvo shows the Volvo XC60 T8, the plug-in hybrid variant of Volvo's midsize luxury SUV. It has both a gasoline engine and hybrid power and can drive on electricity alone for short distances. (Courtesy of Volvo Cars via AP)

This electrified RAV4 does have slightly less cargo space compared to the regular RAV4 Hybrid because the [battery](#) pack takes up more room. Its brakes provide longer-than-average stopping distances too. And as with every vehicle on this list, expect to pay a premium for the efficiency.

## 2020 VOLVO XC60 T8

Starting MSRP: \$55,590

EPA-estimated electric range: 19 miles

EPA gas engine estimate: 27 mpg combined

The Volvo XC60 is worth a look if you're in the market for something a little more upscale. The standard XC60 is one of Edmunds' top-ranked small luxury SUVs, and the plug-in hybrid, which Volvo calls the T8, is near the top of its respective list. It has a premium cabin, spacious seating, and long list of safety tech and driver aids. The T8 gets 19 miles of electric range and better fuel economy and better performance than the standard model.

Downsides are few. We think too many of the XC60's controls are tied into the slick-looking but somewhat cumbersome touchscreen, and Volvo hasn't quite sorted out how to smoothly tune the brakes, though emergency braking performance is fine for the class.

**EDMUNDS SAYS:** A PHEV isn't quite a "best of both worlds" solution to having to choose between a conventional gasoline-powered vehicle or an electric vehicle. But it's close.

© 2020 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Is it time for a plug-in hybrid vehicle? (2020, August 26) retrieved 1 May 2024 from <https://techxplore.com/news/2020-08-plug-in-hybrid-vehicle.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is

provided for information purposes only.