

# Watts Up With Solar-Powered Cars?

## Check out these two super-cool solar-powered cars.

Frank Scotti – November 2018

For years, the concept of “solar-powered cars” has loomed over the electric car industry as a hopeful, possible future. But there are many who argue that this concept is not only impractical, it is basically impossible.

But the innovators behind Lightyear One, a fully solar-powered vehicle to be released in 2019, just won an award for their design. [Lightyear One](#), a car whose ability to use solar power has been thought of as an impossible feat, just won [a Climate Change Innovator Award](#). Designed by the Dutch startup Lightyear, the “car that charges itself” can supposedly drive for months without charging and has a 400 – 800 km range.



German manufacturer Sono Motors is taking pre-orders for its Sion solar-powered car, with the vehicles due on Europe’s roads in 2019. Other manufacturers also have solar vehicles in development. Dutch Company Lightyear says the first deliveries of its own [fully solar-powered vehicle](#) are scheduled for 2020, a year later than originally planned.

Both the Lightyear One and Sion vehicles are covered in solar panels that can either power the car directly, or charge the onboard battery.

## End of the fill-up?

The batteries in the cars offer a fairly standard range compared with other electric vehicles. The Sion has a 250km range, while the Lightyear One has a 400-600km range. By way of comparison, the Tesla Model S has a sector-leading range of more than 630km.

However, while you would need to recharge standard EVs at the end of their range, solar-powered cars could, in theory, go on and on. Even if the Sion's battery was empty, its manufacturer says the car could drive 30km per day. Lightyear, meanwhile, says its car could run for months without being charged.

This could help overcome one of the biggest barriers to widespread EV adoption, the lack of charging points.



Bloomberg predicts that by 2022 EVs will cost the same as fossil fuel cars, helping kickstart a trend that could see them account for more than a third of global new vehicle sales by 2040.

Whether solar-power vehicles will join this affordability trend remains to be seen. The Lightyear One is currently being marketed at prices from \$140,000, excluding taxes.

Sono's Sion, on the other hand, is pitched to be more affordable, sitting within the market range for an average-price vehicle, which in the EU is currently around \$25,000. The company is taking preorders for the vehicle at \$18,800, plus a \$4,700 rental charge for the battery.

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