



## Hyundai lets power go to its head

Published: 9th August 2019

Author: Robin Roberts

Online version: <http://www.wheelswithinwales.uk/hyundai-lets-power-go-to-its-head/>

Hyundai Motor is launching its first car with a solar roof charging system.

This groundbreaking eco-friendly technology will provide vehicles with additional electrical power, as well as increasing fuel efficiency and driving range.

Hyundai Motor's solar roof charging system makes its debut on the New Sonata Hybrid. The system supports the vehicle's electric power source, improving fuel efficiency and reducing CO2 emissions.

In the coming years, Hyundai will roll out the technology to other vehicles across its range. This is the latest application of a smart solution from Hyundai advancing the mobility industry towards a more sustainable future.

"Solar roof technology is a good example of how Hyundai Motor is moving towards becoming a clean mobility provider. The technology allows our customers to actively tackle emissions issue" says, Heui Won Yang, Senior Vice President and head of Body Tech Unit of Hyundai Motor Group. "We are striving to further expand the application of the technology beyond eco-friendly vehicle line up to vehicles with internal combustion engine."

The solar roof system includes a structure of silicon solar panels that are mounted on the car's roof. Being able to charge even while driving, the solar roof system can charge 30 to 60 per cent of the battery per day v. with 6 hours of daily charging, it is expected to increase drivers' travel distance by an extra 1,300 km annually.

The system is composed of a solar panel and a controller. Electricity is produced when solar energy activates the solar panel's surface, which converts this energy by using photons of



light from the sun. This creates the electron-hole pairs in silicon cells, which generate solar electricity.

The electricity from this process is converted to the standard voltage by the controller, then stored in the battery. Hyundai Motor took not only efficiency but also design into account while developing the solar charging system.

While the solar roof system currently plays a supporting role, it opens up perspectives for vehicles that no longer need fossil fuel to operate.