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IT has been more than six months since Chin Weng Keong last refuelled his sport utility vehicle (SUV), a 2018 XC90 T8 plug-in hybrid (PHEV) featuring Volvo's latest hybrid technology.

The plug-in hybrid technology has advanced by leaps and bounds in recent years, and the latest batch of PHEVs can now run for dozens of kilometres in pure electric mode alone.

This may not seem like much, but for some, it is enough to eschew visits to the petrol station for long periods of time while, at the same time, still have the option of going on long outstation trips with the use of the traditional internal combustion engine.

An added benefit of the hybrid powerplant is also its mind-boggling mileage figures.

For these new hybrids, going below five litres of fuel per 100km is the norm.

For example, the on-board computer of Chin's XC90 showed his long-term average fuel consumption over the last 10,000km was at 0.3 litres per 100km.

That is over 333km per litre, meaning that with a full 70 litres of fuel in the XC90, he can drive up to 23,300km.

And if you happen to think that charging the PHEV vehicles also emits CO2 emissions by using electricity from the grid, bear in mind that Chin will soon "generate his own electricity" when he moves to his new place with 74 solar panels.

He charges his SUV mostly from the home Wallbox and sometimes more than once each day.

Chin is no the only driver who has been achieving these phenomenal mileage figures. This has been the case with a group of Malaysian drivers who drive PHEV cars.

They have bent the rule of driving on a single tank of fuel by charging as many times as possible within each refuelling.

Another PHEV driver, Yee Yean Chew, said he once clocked nearly 5,000km from a single tank of petrol on his Volvo XC90. His driving patterns comprised four 15km school runs each day (60km total) and grocery shopping on weekends totalling 24km each way.

With commuting distances well within EV range, it enables Yee to plug in the charger to his XC90 at each stop. "Grocery shopping is 24km away and we charge in the shopping mall while picking up stuffs and lunch. By the time we finish, the car is fully charged and we drive 24km back home to plug it in again, so it will be fully charged after two to three hours."

Of course, the majority of the long trips done by his car are on petrol, al-

» PLUG-IN HYBRID TECHNOLOGY

GOING THE DISTANCE WITH PHEV

PHEV charging socket.



though he will try to do EV driving whenever possible.

"Like going back to Ipoh from Johor, I normally stop in Kuala Lumpur where there's public chargers and spend two to three hours in the mall charging my XC90 before continuing onwards to Ipoh," Yee added.

PHEV user Shahrol Halmi said he had been getting 2,000km per tank on his wife's BMW X5 xDrive40e.

He said: "It's basically plugging in the car every night at home and seek out places to plug in whenever we go out."

Most PHEV drivers do factor in the availability of public EV chargers when they go shopping, dining or to the movies.

This is also why top shopping malls provide EV charging stations in their parking areas, in addition to manufacturer-branded ones such as BMW-i charging facilities.

Another BMW X5 owner, Shamsul Sulaiman, said he had been driving his car for nearly 100,000km since he took delivery of it in November 2016.

That is quite a high-miler considering the period of ownership.

As opposed to other owners, Shamsul drives his X5 for work throughout Peninsular Malaysia. Even so, his on-board computer stated that he had driven nearly 27,000km on EV, which

The BMW X5 xDrive40e is one of the common PHEV premium SUVs.



Yee has recorded more than 4,000km before refuelling his Volvo XC90 T8.



A BMW PHEV being charged.

is roughly 30 per cent of his total mileage.

"I don't charge at home. I charge at the free stations provided under the ChargeEV programme. For the first year, it is totally free. Actually the subscription fee is included in the price of the car. For the second year onwards, it is RM240 per year."

Shamsul said he also preferred not to regenerate electric using the regeneration function in his car because it was not very efficient. Instead, he charges it when coasting or driving downhill.

Plug-in
Hybrid
Vehicles
Only.



The mileage of Shamsul's X5 in just two and half years.

Fuel saved for all journeys

2651.5 Litres

Fuel can be saved by regular charging. The more often you charge your vehicle, the greater the saving.

Electric distance driven for all journeys

26864.9 km

Every kilometre that you drive electrically reduces emissions and protects the environment.

The fuel saved and electric driving displayed by Shamsul's X5.

it is historically-proven that what will initially be available on higher end products before being made available to the more mass-produced ones.