

# An energy efficient eco-friendly ride

ANDYLE MAY

Transforming the way we get around is crucial if we're going to reduce our dependency on fossil fuels.

Vehicles that emit zero emissions are rapidly becoming a practical option for drivers around the world, and it is clear to see why: they're great to drive, good value for money and do very little harm to the Earth.

Take a Tesla P100D electric sedan, for example. It is now the fastest 0-100 km/h production car in the world with a blistering time of 2.3 seconds, enough to put a smile on the face of even the most hardened petrolheads.

All this while at the same time having seven seats and a "frunk", a 500km range and an equivalent efficiency of around 35 km/l or 2.8 l/100km. A "frunk" is a front boot – the Tesla has both a frunk and a trunk as the front space is not wasted with an engine!

Most car manufacturers are now offering either pure battery electric vehicles (BEV's) or plug-in hybrid electric vehicles (PHEV). Hybrids still retain an internal combustion engine and are a practical transition technology that allows manufacturers to reduce vehicle costs while giving longer range.

Many hybrids use an electric motor drive system and the internal combustion engine to drive a generator to create extra electricity.



Electric vehicles offer features like "regenerative braking" or Regen. This means that when slowing down, or coasting down a hill, the electric motor can act as a generator. This allows the vehicles momentum to be used to generate electricity, which is then stored in the batteries rather than wasted in heat by the brake pads.

This is more energy efficient, eco-friendly and means less servicing as brake pads last much longer.

BEV's and PHEV's can plug in at home to be charged and typically don't require anything more than a normal plug point for overnight charging. Away from home, SA's charge network is still small compared to Europe, but it is growing.

Electric cars available in SA, such as the Nissan Leaf and BMW i3, offer ranges of around 100-150km and are perfect for daily commuting and running about the city. While they are more expensive to buy, their operating and service costs are minimal.

As well as electric cars, we also have ewizz electric scooters and zero electric motorcycles available



■ This Tesla P100D BEV electric car does 0-100 km/h in 2.3 seconds.

in South Africa. It may surprise you to know that for the price of one month's fuel for a petrol car you can do the same journeys on an electric scooter for three years.

An electric two-wheeler may not be suitable for everyone, but with no congestion, no emissions, a tiny fraction of the costs and no parking issues, it is no wonder that they are seen as the coolest and smartest

transport for city life in Asia and Europe.

Electric vehicles are not new, and, in fact, many were on the roads in the early 1900s. At that time, their owners loved them because they were clean, quiet and smooth but the battery technology held back their mass adoption.

The recent combination of ever-increasing fuel prices, climate

change and development of lithium-based batteries (as used for mobile phones and laptops), however, has changed that, and now the clean revolution in transport is upon us.

Continued on page 6

## REACH 87ℓ OR LESS BY REDUCING YOUR WATER PRESSURE

DID YOU KNOW REDUCING YOUR HOME'S WATER FLOW CAN REALLY HELP YOU MAKE EVERY LITRE COUNT?

### REDUCE YOUR HOME'S WATER FLOW RATE IN 5 EASY STEPS:

- |        |  |        |   |
|--------|--|--------|---|
| STEP 1 | Make a note of the current flow rate on your property. | STEP 4 | Open the COLD water tap and check the water flow.     |
| STEP 2 | Close the stopcock, then open it with half a turn.     | STEP 5 | Now, adjust the flow rate until you find it suitable. |
| STEP 3 | Find the tap furthest from your property's stopcock.   |        |   |

**Reducing your water flow will help lower the demand for our scarce water resources. Please SAVE wherever you can.**

### THE STOPCOCK ON YOUR PROPERTY

YOUR STOPCOCK WILL BE WITHIN  
+1.5 m FROM YOUR WATER METER



TO CLOSE, TURN THE STOPCOCK  
IN A CLOCKWISE DIRECTION

