

## Which countries are winning the great electric vehicle race?

By <u>Ashley Oldfield</u> 26 Feb 2021

With the world's automotive industry shifting inexorably to electrified powertrains, which countries are best positioned to adapt to an influx of new electric vehicle (EV) models in their markets, and where does South Africa sit on that list?



Photo by Marc Heckner on Unsplash

A recent <u>study by stressfreecarrental.com</u> took into account the number of EVs being sold in countries with how well the charging infrastructures in those nations were set up for the inevitable shift to EVs.

While we may feel somewhat isolated from what is happening globally in Mzansi, there will come a time in the near future when our current lineup of cars will no longer exist or will have transformed their powertrains to fully electrified units. The news that <u>Jaguar will transform into an all-electric brand by 2025</u> will mean its petrol- and diesel-powered models will cease to exist in our market soon thereafter.

Even if we consider our most popular passenger-vehicle brand, Volkswagen, its future is decidedly electric. VW plans to introduce 300 electrified vehicles across 12 model ranges and is targeting 50% electrified sales by 2030. Where will South Africa stand when that happens? Will VW become a Polo and Vivo only manufacturer? That doesn't seem sustainable as a business case.

## WHO'S WINNING THE WORLD'S ECTRIC VEHICLE RACE? PEOPLE PER $(\mathcal{D})$ PUBLIC CHARGING STATIONS EVs PER CHARGING STATION RANK COUNTRY POPULATION **EVs SOLD** NETHERLANDS 17.28M 297,380 60,000 5.33M 30 52 19 67.06M 143 16 5 304 9 CHINA 1398M 4,595,100 516,000 ●●非● 25 GERMANY 83.02M 700,000 119 27,730 7 JAPAN 126.3M 325,000 389 30,000 111 8 UNITED KINGDOM 66.65M 434,282 154 13,505 32 CANADA 37.59M 188,100 200 5,004 38 10 USA 328.2M 1,741,566 189 26,000 67 (SOME NUMBERS HAVE BEEN ROUNDED)

Image credit: stressfreecarrental.com

So what of Europe and the rest of the world? How is the first world set up to pivot in tandem with the electrification drive? In terms of people in a country per EV, it's no surprise that the Scandanavian countries of Norway and Sweden top the charts. Both governments heavily incentivise EV purchases, which, in most cases makes them far cheaper than their internal combustion engine counterparts.

When the number of EVs in a country is paired against the number of charging stations in that nation, the Netherlands is clearly ahead in terms of available charging infrastructure. The list doesn't take into account how powerful these charging stations are, which affect how quickly electric vehicles can be charged up, but by using the plugshare.com website, you can easily navigate to an adequate charger.



Image credit: stressfreecarrental.com

South Africa ranks dismally when it comes to EVs per person, in fact, its EV density is 93,720 people per EV. A total of 637 EVs have been sold in South Africa since their introduction in 2013 with 70% of those sales being BMW i3s.

However, when we rank South Africa in terms of charging stations per EV, we rank better than the Netherlands. South Africa has 2.5 EVs per charging station, which means we're pretty well catered for EV charging points at our current EV capacity. South Africa has 257 charging stations spread around the country. A lot of the infrastructure we currently have is thanks to early investors such as Jaguar, which has installed a Powerway along the N1 and N3 highways, which incorporates nearly 90 charging stations.

Private companies are now set to install their own charging stations with the likes of GridCars involved in the sector. Currently, our highest output charger is 60kW, which pales in comparison to the Tesla V3 Superchargers, which can charge at a rate of 250kW - vehicle dependent, of course.

The next few years will be particularly important for South Africa – as much of the world transitions from fossil fuels to electric power, the last thing we would want is to be left behind.

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