NATIONAL

Government urged to provide tax holiday on electric vehicles

Prices have to drop to facilitate just-energy transition, says Zero Carbon Charge cofounder Joubert Roux

BL PREMIUM

11 MARCH 2024 - 05:00

by DENENE ERASMUS

Picture: 123RF/nopponpat

Electric vehicles (EVs) have a small share of SA vehicle sales, but their sales have started rising fast from that low base.

To achieve exponential growth in EVs, an important enabler of SA's wider energy transition, their prices have to drop and there has to be a far wider network of charging stations.

Though driving an electric vehicle from Johannesburg to Cape Town is not impossible,

you had better not be in a rush, and you will face some difficulty driving to outlying corners of SA, said Joubert Roux, co-founder of EV charging station company Zero Carbon Charge.

The company hopes to change that. Banking on its expectation of exponential growth in EV uptake from next year, the company is rolling out 120 solar-powered EV charging facilities at 150km intervals on all national routes.

It hopes to have the first station operational by July, Roux told Business Day. It will be in Wolmaransstad, North West, the first site for which they could get regulatory approval.

"The permitting process is unbelievably onerous because it is all new. We needed input from national and provincial governments as well as local authorities. We have two full-time staff members who engage with government and a 'feedlot' of consultants managing the various application processes," he said.

This was not the only difficulty they had to overcome. The Eskom electricity grid can't supply the electricity needed for the charging stations, especially in rural areas where "you will now suddenly have multimegawatt demands in places like Pofadder and Bitterfontein".

That is only one of the reasons why their charging facilities will be built to operate off the grid. Charging an EV using electricity generated from a fossil fuel such as coal defeats the emissions-reduction purpose of zero-emission cars.

Only option

Their research shows that an EV charged by Eskom's predominantly coal-fired grid emits 5.3 metric tonnes of carbon emissions a year. That is more than a petrol vehicle, which, on average, emits 4.4 metric tonnes of carbon emissions a year if driven over the same distance.

"That is why the solution of off-grid, solar-powered EV charging is the only viable option for SA to adopt EVs and migrate to green mobility, said Roux.

All electricity for their charging facilities will be generated on-site from renewables with battery storage, and each site will also have a generator running on biofuel as backup to ensure constant electricity supply.

A report on decarbonisation of the transport sector, one of a series of reports on just transition and climate pathways by the National Business Initiative, Business Unity SA

and Boston Consulting Group,proposes a rapid shift to EVs from now to 2035.

According to the report, the transport sector is the third-largest source of polluting emissions in SA, about 55-million tonnes of carbon dioxide equivalent. Road transport is responsible for 50-million tonnes, or about 90% of this. In the road transport segment — everything from passenger vehicles to minibus taxis, buses and heavy-duty trucks — cars account for about a quarter of emissions.

SA had to ban sales of internal combustion engine vehicles from 2035 to meet its international climate commitments and accelerate its adoption of zero-emission EVs to reach 100% by 2050, said the report.

And to reach the goal of 100% EV adoption by 2050, up to R100bn had to be invested in EV charging infrastructure.

Zero Carbon Charge will spend R1.8bn-R2.3bn (initially funded with equity capital) to build their 120 charging stations. Its target for the year is to have 60 charging stations up and running by December and all 120 stations built by September 2025.

“We expect exponential growth of EVs to start by the middle of next year. Global trends have shown as soon as there is a reliable, nationwide charging network available, and when the price of EVs falls to a level of below R500,000 per car, these factors will drive exponential growth in the uptake of EVs.

Increasing faster

“We expect both of these factors to be present in our market next year,” said Roux.

According to figures presented at an EV dialogue session hosted by Trade & Industrial Policy Strategies (Tips) in February, EV sales in SA rose 65% in 2023, reaching about 7,700 vehicles or 2.2% of all car passenger sales last year. These sales were still dominated by hybrid vehicles, but sales of battery-electric vehicles have been increasing even faster.

Until recently, electric vehicles have been more expensive than internal combustion engine cars, but it is starting to change, said Roux.

BYD, a Chinese EV manufacturer, produces a car that sells for the equivalent of about R360,000 per car in China, and it could sell in SA for R400,000 were it not for hefty taxes imposed on EV imports, he said.

EVs are subject to 25% import duties while internal-combustion engine cars face a

tariff of 18%. Electric vehicles also attract a 17% ad valorem, or luxury, tax.

Roux said they were urging the government to impose a five- or six-year tax holiday on EVs to help grow the market.

“A tax holiday with [a] hard cut-off will grow the market and will see battery manufacturing pick up locally because there will be a large enough market to warrant it,” he said.

By promoting the establishment of a value chain for EVs in SA, the government could also help grow production of EVs in SA for export and local sales, one of the main goals expressed in the EV white paper published last year.

Funding unclear

The National Treasury announced in the 2024 budget that it was instituting a tax incentive to encourage production of EVs in SA. It will allow producers to claim 150% of qualifying investment spending on production capacity for electric and hydrogen-powered vehicles in the first year of investment. The Treasury allocated R500m for this, and the department of trade, industry & competition reprioritised R964m over the next three years to support transition to electric vehicles, in line with the white paper.

But, said Roux, it was not clear what this funding would entail.

Most of their charging stations will be at existing convenience facilities such as farm stalls along national routes. In the absence of facilities, they will build a small convenience offering so that there will be “live bodies” on site at all the charging stations, offering additional security.

Payment will be via an app. Zero Carbon Charge is using Safrisat to provide high-speed internet access at all charging locations. They will monitor smart cameras to be installed at all locations, which will also be linked to local security companies with instant-response services.

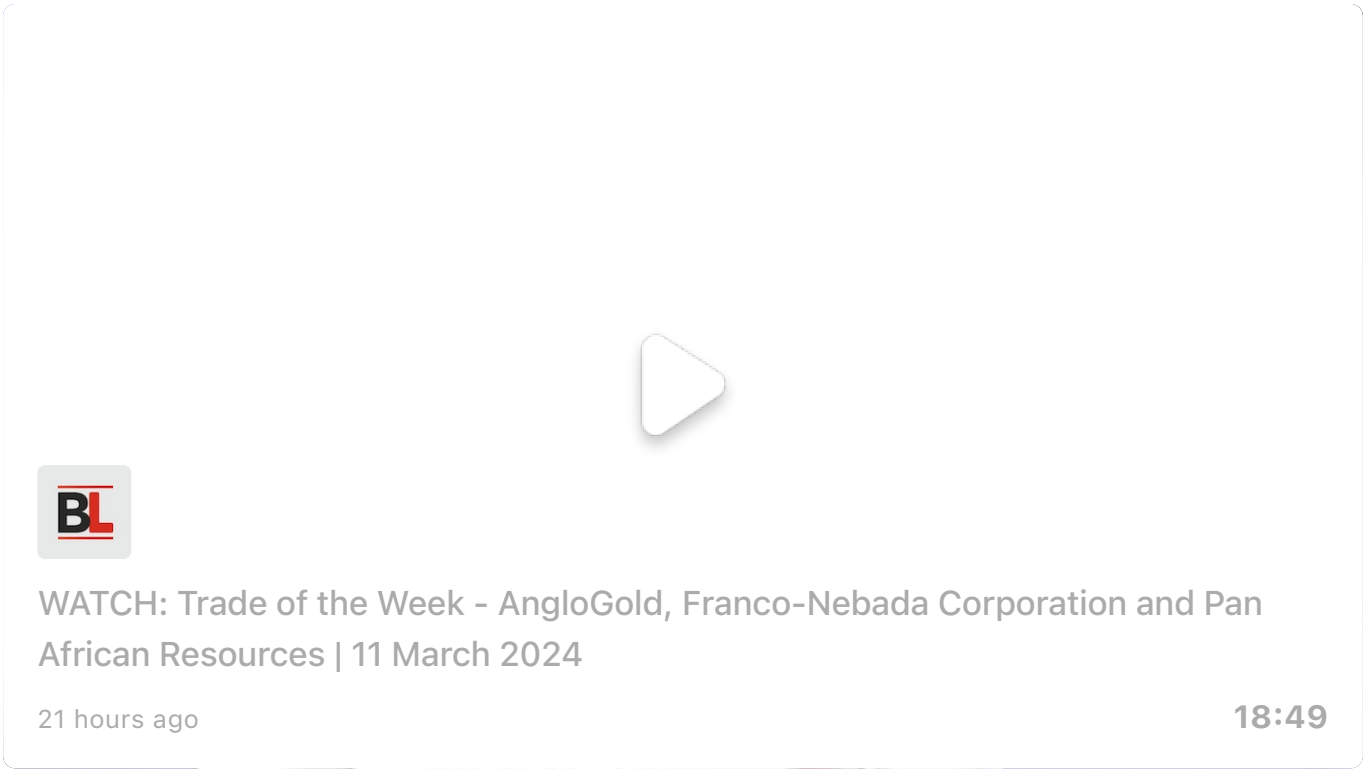
They will use “dynamic pricing”, charging more at night when the electricity supply will typically be from batteries or generators, and less during the day when the solar panels are generating electricity.

The average charge in Europe now was 55kW-60kW, Roux said. As they are targeting a price of R9 per kW, a 50kW charge will cost R450, which should be sufficient for trips of up to 300km, depending on vehicle and driving style.

erasmusd@businesslive.co.za

BDTV

Read more →



WATCH: Trade of the Week - AngloGold, Franco-Nebada Corporation and Pan African Resources | 11 March 2024

21 hours ago

18:49

Next video

9:18

WATCH: Unpacking Absa's annual results

21 hours ago

13:01

Market Report - 11 March 2024 | Business Lunch

21 hours ago

7:51

Market Report - 08 March 2024 | The Close

3 days ago

WATCH: Stoc This Week | 0

3 days a