

Africa sets the foundation for an electric vehicle future

By <u>Yael Shafrir</u> 21 Sep 2023

Numerous South Africans facing daily challenges commuting to their workplaces via minibus taxis or cars on crowded highways might have difficulty accepting that an electric mobility revolution is on the horizon. However, several factors are pointing in that direction.



Source: Unsplash

Emobility refers to electric vehicles, ideally powered by renewable energy sources, which may range from two- and three-wheeled vehicles to cars and buses.

Recent developments

Some recent developments are underway in South Africa which are laying the foundation of the future emobility revolution. This will help the country to meet its carbon reduction commitments under the Paris Agreement. Promising moves include the recent publication of the South African Renewable Energy Masterplan, which embraces battery storage and renewable energy.

Work is underway on an EV Masterplan and a Critical Minerals Masterplan, which will have input from the Department of Trade, Industry and Competition and the Department of Mineral Resources and Energy, among others.

In the private sector, BMW announced in June 2023 that it would be manufacturing the BMW X3 as a plug-in hybrid for global export at its plant in Tshwane, South Africa. In the last couple of years, there has been a significant increase in the

importation of electric and solar batteries into South Africa, as well as the growth of battery assembly in the country, especially in the Western Cape.



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These local events are happening in parallel with Africa-wide initiatives. The African Continental Free Trade Agreement (AfCFTA) has prioritised the automotive sector and transport/logistics value chains.

The African Association of Automotive Manufacturers (AAAM) is working with original equipment manufacturers (OEMs) on a continent-wide strategy. Afreximbank is supporting investments in the automotive sector with various programmes. Critical minerals and renewable energy are also likely to become priority sectors across the continent.

Certain African jurisdictions are incentivising electric vehicle and emobility development. Rwanda has plans to phase in electric buses, cars and motorcycles, while the recent steps taken by Kenya are particularly noteworthy.

Kenya has established an Emobility Taskforce, whose main objective will be to develop a National Electric Mobility Policy covering all modes of transport (road, air, rail and maritime). and drive uptake of emobility, create an enabling environment, recommend fiscal and non-fiscal incentives to promote import, local manufacture and assembly, provide a framework for the end of life and disposal, a framework for the development of carbon credits, creation of standards and measurement of impact on the economy and the environment.

Likely development path for emobility in Africa

Initially, EVs or emobility are more likely to find traction in public transport and two- to three-wheelers before wide-scale adoption by the automotive sector.

The evolution will be different in each African jurisdiction. For example, Kenya, Nigeria and Uganda have more two- and three-wheelers than South Africa, so they are likely to prioritise electrification of those modes of transport.

In South Africa, there may be greater potential in starting emobility in the public transport sector/ delivery sector, to meet a significant gap in the market.

There is a real opportunity for SA to help lead the emobility revolution in Africa, for several reasons. The continent urgently needs affordable and sustainable mobility solutions. The market for lithium battery cells could be met through local manufacturing since the continent possesses many of the necessary raw materials.

South Africa has a mature automotive sector, including OEMs that export around the world, and it has signed various trade agreements that facilitate exports to Europe, such as the European Partnership Agreement (with the SADC) and the African Growth and Opportunity Act (Agoa).

In creating an EV export industry, South Africa can take advantage of the AfCFTA's rules of origin, where 40% of local content from Africa is under discussion.

Implications for South Africa

By developing a multi-faceted emobility manufacturing sector, South Africa would help to speed its own transition to a greener future and meet its climate change goals; promote industrialisation in line with Africa's Agenda 2063 (the continent's blueprint for achieving inclusive and sustainable development over a 50-year period, with an emphasis on youth and women); and create jobs.

As South Africa transitions away from internal combustion engine (ICE) vehicles, it would be able to participate in other parts of the value chain beyond car manufacturing.



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There is an opportunity to manufacture the cells or batteries needed for EVs, and battery factories can stimulate local and regional economic growth. Battery factories could help to develop skills in engineering and attract talent to different regions where manufacturing takes place.

Of course, there are constraints on these plans. The most obvious in South Africa is the lack of access to uninterrupted energy sources. Another constraint is that it is difficult to raise seed capital for projects related to Environmental, Social and Governance improvement.

More funding is needed in South Africa to support innovative startups.

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