

Electric vehicles in Transport Month

It is Transport Month in South Africa, when public and private stakeholders reflect on ways to improve South Africa's transport, which serves a large population by road and rail. The South African National Energy Development Institute (SANEDI) reflects on the rise of electric vehicles (EV).

"SANEDI strives to implement 'cleaner mobility solutions', focussed mainly on cities and other niche markets. SANEDI and United Nations Industrial Development Organisation (UNIDO) are collaborating on a Low Carbon Transport Project in South Africa. Together with the dti, we work on the alignment of policies that inform the introduction of alternative modes and alternative energy for transportation," explains Barry Bredenkamp, General Manager for Energy Efficiency at The South African National Energy Development Institute (SANEDI).

"With the City of Johannesburg and eThekweni Municipality, we support the development of non-motorised transport (NMT) plans and installation of charging infrastructure for EVs. We also support other cities to plan their green transport initiatives and developments and work with the Department of Transport on the NMT and Green Transport strategy documents.

"Together with national government and industry stakeholders, SANEDI and uYilo Electro-Mobility Technology Innovation Programme have been instrumental in establishing the Electric Vehicle Industry Association (EVIA)¹. uYilo has also invested millions of Rands in support of local public charging infrastructure technologies, through its uYilo Kick-Start Fund²."

EV usage increases slowly

Around 1 000 EVs have been sold in South Africa to date, indicating a 167% increase since January 2018. However, the pace is much slower than in other parts of the globe. In 2018, around 1.6 million EVs were sold in the US, Europe and China collectively. China is the world's leader in EVs, according to the International Energy Agency (IEA). The China Association of Automotive Manufacturers stated in April 2019 that its sales of battery electric vehicles had risen 83% on a year-on-year basis. Sales of plug-in hybrid vehicles had risen 91% over the same period.

Research firm TrendForce predicts in the Global Automotive Market Decode for Q1 report that electric vehicle shipments will reach 5.15 million in 2019, representing year-on-year growth of 28%.

"Public transport is a necessary and unavoidable expense for 40% of South Africa's commuters, as they are unable to afford private transport. This compares to 38% who use a private vehicle, 21% who walk and 1% who use other forms of transport. Overall, 67% of those who utilise public transport choose to use minibus taxis, 20% use buses and 13% use the trains; 70% of learners and 68% of workers use minibus taxis to commute.³

¹ <http://www.evia.org.za/>

² <http://uyilo.org.za/>

³ [www.transactioncapital.co.za/downloads/taxi/FY18_SA%20Taxi%20Funder%20Prospectus%20\(1\).pdf](http://www.transactioncapital.co.za/downloads/taxi/FY18_SA%20Taxi%20Funder%20Prospectus%20(1).pdf)

“The Department of Transport’s Green Transport Strategy 2018-2050⁴ has ten pillars that define exactly what needs to be done. The strategy is placed under Integrated Transport Planning because benefits will be integrated. One pillar suggests using alternative fuel sources where possible, for example compressed natural gas (CNG), which is already being used in South African buses and has been tried in Gauteng taxis. There is also the electric vehicles (EVs) concept, which is divided into two: there are full electric vehicles and hybrid vehicles.”

IMPLEMENTATION THEMES	STRATEGIC PILLARS
Climate Change response norms and standards	1. Develop norms and standards for climate change response at National, Provincial and Local level to ensure that there is consistency in the way climate change responses are implemented across different jurisdictions
Green Roads	2. Shift car users from INDIVIDUAL private passenger cars to public transport, including rail
	3. Provide infrastructure to promote NMT and eco-mobility transport
	4. Provide transport infrastructure in a manner supportive of the eco-system, while not dearly compromising generations to come
Green Rail	5. Extend the rail network to provide reliable, safe and affordable high-speed transport while switching to renewable energy trains
Green transport technologies	6. Reduce the carbon footprint and over-reliance of petroleum based fuels, by decarbonising the transport sector
	7. Promote alternative fuels such as Compressed Natural Gas (CNG) or biogas, and liquid biofuels as transport fuels
	8. Promote electric and hybrid-electric vehicles
Green Fuel Economy Standards	9. Develop “Green Procurement Guidelines” to promote efficient, and low carbon vehicle technologies
	10. Provide norms, standards and regulations that promote green fuel economy in vehicles and improve emission standards of fuel in South Africa

Conclusion

“When one considers that the South African trains transport around 800 000 commuter trips daily, buses transport about 1 million commuters a day, BRT 120 000 a day and minibus taxis do over 15 million commuter trips daily⁵, the need for green mobility solutions is critical,” concludes Bredenkamp.

Ends 566 words

About SANEDI

The South African National Energy Development Institute (SANEDI), established by the Government, directs, monitors and conducts applied energy research to develop innovative,

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www.transport.gov.za/documents/11623/89294/Green_Transport_Strategy_2018_2050_onlineversion.pdf/71e19f1d-259e-4c55-9b27-30db418f105a

⁵ [www.transactioncapital.co.za/downloads/taxi/FY18_SA%20Taxi%20Funder%20Prospectus%20\(1\).pdf](http://www.transactioncapital.co.za/downloads/taxi/FY18_SA%20Taxi%20Funder%20Prospectus%20(1).pdf)

integrated solutions to catalyse growth and prosperity in the green economy. It drives scientific evidence-driven ventures that contribute to youth empowerment, gender equity, environmental sustainability and the 4th Industrial Revolution, within the National Spatial Development Plan, through consultative, energy efficient projects. For more information, go to www.sanedi.org.za.