

# The GLOCEPS

## Commentary Today

Development Pillar

### Prioritization of Electric Mobility Key to the Green Revolution of Kenya's Public Transport

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Photo Credit: Business News Africa

Kenya inks 50 billion shilling facility with EU Commission to build electric bus rapid lane

Kenya has actively embarked on the journey to making public transport carbon-zero. The drive is based on the need to reduce greenhouse gas emissions and improve air quality. To this end, the private sector has taken this initiative to reduce reliance on petroleum-powered vehicles.

Globally, the transport sector is identified as a key pollutant, accounting for about 20% of all carbon emissions. Road transport systems account for 75% of these emissions. This is an equivalent of three billion metric tonnes annually. Comparatively, the road output is seven times higher than that of the aviation industry which contributed about 3% of all emissions in the transport sector. Domestically, 2019 estimates show that the public transport sector emitted 12.3 million tonnes of carbon dioxide.

The transition from fossil power to electric-powered transport has inherent benefits like cost savings and employment creation. It is estimated that electric vehicles (EVs) enjoy a service and fuel cost reduction of between 50-80% compared to their fossil counterparts. Besides, initiatives by EV companies like BasiGo to

deploy 1000 electric buses in Kenya by 2025 are expected to create 300 direct manufacturing jobs with an additional 300 jobs in the EV ecosystem of charging, maintenance, and financing of the buses. In the Kenyan context, public transport is primed for transition to electric mobility (e-mobility). Data from the 2019 Kenya Population and Housing Census report supports this assertion. Averagely, 68.1% of the Kenyan population does not own any motorized form of transport, reinforcing reliance on public transport. Car registration data evidence that the registration of private vehicles outpaced public vehicles on a ratio of 1:30. Thus, private vehicles lead in traffic congestion as they occupy a large percentage of the road space compared to buses with similar passenger capacity. As such, privately owned vehicles comparatively contribute most to road transport carbon emissions.

E-mobility transition for public transport is modestly low. However, investments by e-mobility startups like Roam and BasiGo are growing. Current e-mobility trends indicate a focus on two-wheelers and high-capacity electric buses



Photo Credit: Basi Go

Roads and Transport CS Kipchumba Murkomen launching electric-power public transport bus in Nairobi



and greater private sector interest with minimal government intervention.

However, a great opportunity is available across the e-mobility value system both for private and state entities. For instance, Kenya Power and Lighting Company's (KPLC) reserve energy capacity of more than 800 megawatts can be up-scaled and channeled to provide favorable energy conditions for e-mobility. Equally impressive is that Kenya's energy mix is predominantly from renewable sources. The current 81% clean energy production is anticipated to reach 100% by 2030.

In light of emerging investment opportunities, companies like the Kenya Electricity Generating Company (KenGen) are planning to leverage their capacity and know-how for e-mobility. Anecdotal evidence points to an extant gap that can be beneficial to early investors in EV infrastructure. For instance, the adoption of EVs in Kenya is estimated at 5% of total vehicles. EV adoption is projected to rise considerably in the upcoming years as Japan, which is Kenya's main vehicle source market, targets to transition production to 100% electric car sales by 2035. Automakers like Honda are planning to phase out petroleum-powered autos completely by 2040. Similarly, forecasters allude that EV vehicles in the United States and China will average 40% of total passenger car sales by 2030. These trends validate KenGen's plans to install more than 30 EV charging stations by end of 2023. Equally, KPLC intends to commission the construction of electric charging systems for homes, businesses, and the public.



Conversations around greening the Bus Rapid Transit (BRT) network substantiate the prioritization of e-mobility initiatives. E-mobility policy ideas should highlight accessibility to both rural and urban markets, address affordability concerns, encourage the scale-up of local production, and promote the roll-out of complimentary services like charging points at strategic locations across the country. Equally, KPLC should ensure that the electric grids are resilient to accommodate the increased demand for power from the transportation sector.

Policy discussions should similarly encourage the transition to EV transportation. Lessons can be learned from other jurisdictions. For instance, the Norwegian government exempted EV buyers from all taxes and fees levied on regular vehicles. This resulted in nearly 66% of all new vehicle sales being electric. In Kenya's context, tax incentives would encourage investments and the uptake of green mobility options like e-cargo bikes, e-trucks, and e-boats. Investors opine that the current price range of between \$60,000 and \$100,000 for high-capacity buses (25-51 seater buses) needs lowering for accelerated uptake.

Prioritization and support for green financing of EV public transport are timely. This will attract investments in EV local manufacturing, deployment of e-buses, and charging infrastructure. Investment in e-mobility infrastructure requires a multi-sectorial approach by both state and private sector players. Presently, the financing model is driven predominantly by the





private sector. They include the Pay-As-You-Drive financing model to encourage the uptake of e-mobility. Business-to-business financing models are gaining popularity. For instance, BasiGo and KCB Bank inked a three-year financing deal to cover 90% purchase price for e-buses worth less than 5 million shillings. NCBA has also launched a 2 billion shilling EV financing to cover 80% of the purchase cost over 5 years.

As the Kenyan government looks forward to a cleaner and sustainable future, an upscale of initiatives for efficient, green, and inclusive e-mobility is key. A green public transport sector is an integral component of the transition portfolio. To this end, policymakers and stakeholders should prioritize unraveling impediments to e-mobility. These include the development of e-mobility standards by the Kenya Bureau of Standards, and addressing electricity supply and reliability concerns in rural and urban Kenya. Policy actions and collaborations are necessary to address EV registration challenges and incentivize local EV manufacturing for increased in-country purchasing. Lastly, support for local research and development in EV technologies and auxiliary infrastructure is key to fixing EV battery charging challenges. Promoting investments in innovative solutions like battery swap stations is encouraged.

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