Promotion of Electric Mobility in Kenya

Strengthening competencies and capacities for enabling framework and market development for enhanced electric mobility uptake in Kenya.

The challenge

The transport sector is responsible for more than 70% of all energy related GHG emissions in Kenya, with road transport accounting for more than 95%. At the same time, the expansion of renewable energies including wind and solar energy has progressed positively in the recent years, however, electricity demand has not risen in line as initially expected leaving Kenya with a situation of overcapacity.

Electrification of transport using renewable energies plays a critical role in promoting sustainable, climate-friendly transport solutions. Further, in the recently updated Nationally Determined Contributions (NDC), Kenya prioritises electrification of transport systems as one of the ambitious mitigation initiatives aiming to abate GHG emissions by 35% by 2035.

The e-mobility technology is still nascent in Kenya and there is little experience with it. Currently, the regulatory environment is aligned with the deployment of internal combustion engine vehicles. Therefore, technical expertise and regulatory frameworks remain underdeveloped.

Our approach

The project "Promotion of electric mobility in Kenya" commissioned by the German Ministry for Economic cooperation and Development (BMZ) and co-financed by the European Union. The project seeks to address inadequacies in the systematic introduction of climate friendly electric mobility applications and the lack of necessary capacities for key players in the sector. The project's focus is on strengthening competencies and capacities for an enabling framework and market development for enhanced electric mobility uptake.

Fully electric vehicle and charging infrastructure exhibition at the 3rd Annual E-Mobility stakeholders conference.

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The target group/partners for the project include: (a) relevant authorities in the policy and regulatory environment; (b) actors in the technical, vocational and educational training sector; and (c) industry players within the electric mobility value chain, including those in the public transport sector.

The project supports national government and public authorities to develop strategies, regulations and standards for electric mobility in the country. Criteria for qualification of professionals in the technical field of e-mobility will be developed. Promising electric mobility solutions in the private and public transport sphere will be supported and disseminated. The principles of a circular economy model informs the project intervention.

Project name	Promotion of electric mobility in Kenya
Commisioned by	German Ministry for Economic Cooperation and Development (BMZ) with co-financing from European Union
Project region	Kenya
Lead executing agency	Ministry of Roads and Transport in cooperation with Ministry of Energy and Petroleum, Siemens Stiftung.
Duration	2023– 2026 (4 years)

The Project operates under four Components;

Policy, standards and regulations -This focuses on enabling a supportive policy and regulatory environment for the adoption and scale-up of electric mobility in Kenya. It promotes the coordinated development and implementation of national strategies, regulations, and standards by relevant authorities across sectors. Key milestones include the formulation of Kenya's National E-Mobility Policy and Implementation Framework, and the establishment of a multi-stakeholder institutional framework comprising five technical working groups to guide its

rollout. To ensure alignment with international best practices, Kenya's electric vehicle charging standards have been reviewed and updated. Ongoing activities include the revision of the KS 662 wiring standards to integrate EV charging needs, a national feasibility study on electric vehicle charging infrastructure, and an assessment of the potential for local manufacturing of EV components. Further studies focus on the electrification readiness of the Northern Corridor, the development of Harmonised System (HS) codes for e-mobility products, and the establishment of battery circularity frameworks. These policy-driven efforts aim to lay a solid regulatory and institutional foundation that facilitates a coordinated, inclusive, and investment-ready transition to electric mobility in Kenya.

Institutional Capacity and Technical Expertise- This component focuses on strengthening the institutional capacities of key e-mobility actors to support a sustainable and inclusive transition to electric mobility. Key interventions include the development and application of specialised training curricula tailored to the operation, maintenance, and repair of electric vehicles, informed by a comprehensive training needs assessment. To promote gender inclusion and workforce diversity, the project has facilitated the establishment of the Women in E-Mobility Network, creating a platform for peer learning, mentorship, and increased female participation in the sector. Additionally, institutional support has been provided to the Electric Mobility Association of Kenya(EMAK) to enhance stakeholder coordination, knowledge exchange, and advocacy efforts.

Dissemination of pilot applications and learning experiences – Implemented through Siemens Stiftung.
The component focuses on strengthening framework conditions for e-mobility in urban and rural areas through supporting at least 5 enterprises engaged in pilot projects. Additionally, the capacity of social entrepreneurs in the e-mobility sector is being enhanced to drive locally led, sustainable mobility solutions. Supporting research and development (R&D) of pilot applications and business models of e-mobility enterprises to improve their market position.

Support introduction of electric buses in the Bus Rapid Transport system project (co-financed by EU) – This component supports the development and demonstration of electric mobility frameworks through the deployment of clean Bus Rapid Transit (BRT) systems, particularly the commissioning of BRT Line 3 in Nairobi. Efforts focus on improving the technical and regulatory conditions necessary for successful implementation, including the scoping of suitable electric bus rolling stock and associated equipment aligned with circular economy principles. The project also aims to ensure that the economic and environmental benefits of clean BRT and electric buses are well understood and acknowledged by the public, thereby enhancing acceptance and support.

The benefits

In Kenya, transitioning to e-mobility presents critical benefits for the economy, environment, and transport sector. The country imports over 90% of its petroleum, costing approximately KES 500 billion annually, funds that could instead support local clean energy industries. Kenya's electricity grid is already over 80% renewable, primarily from geothermal and hydropower sources, making e-mobility a climate-smart solution. Transport accounts for about 13% of national greenhouse gas emissions; shifting to electric vehicles can significantly cut this, aligning with Kenya's commitment to reduce emissions by 35% by 2035 under its Nationally Determined Contributions (NDCs). Moreover, the sector presents green job creation opportunities and economic opportunities in the electric vehicle (EV) value chain.

Success factors

The project is greatly aligned with Kenya's commitment to sustainable transport. The project has so far received strong government backing through the adoption of the National E-Mobility Draft Policy, which provides a clear pathway for the development of the sector, in addition to the government's provision of fiscal and non-fiscal incentives aiming to accelerate the adoption of electric vehicles. Broad support from key industry players has also been instrumental in building local technical capacity, offering innovative financing models and extensive awareness creation in the peri-urban and rural areas.

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