



Africa E-mobility Forum

Dar es Salaam

20-24 March



ADVANCING
PUBLIC
TRANSPORT



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March 21, 2023

Electric Vehicles Adoption in Rwanda

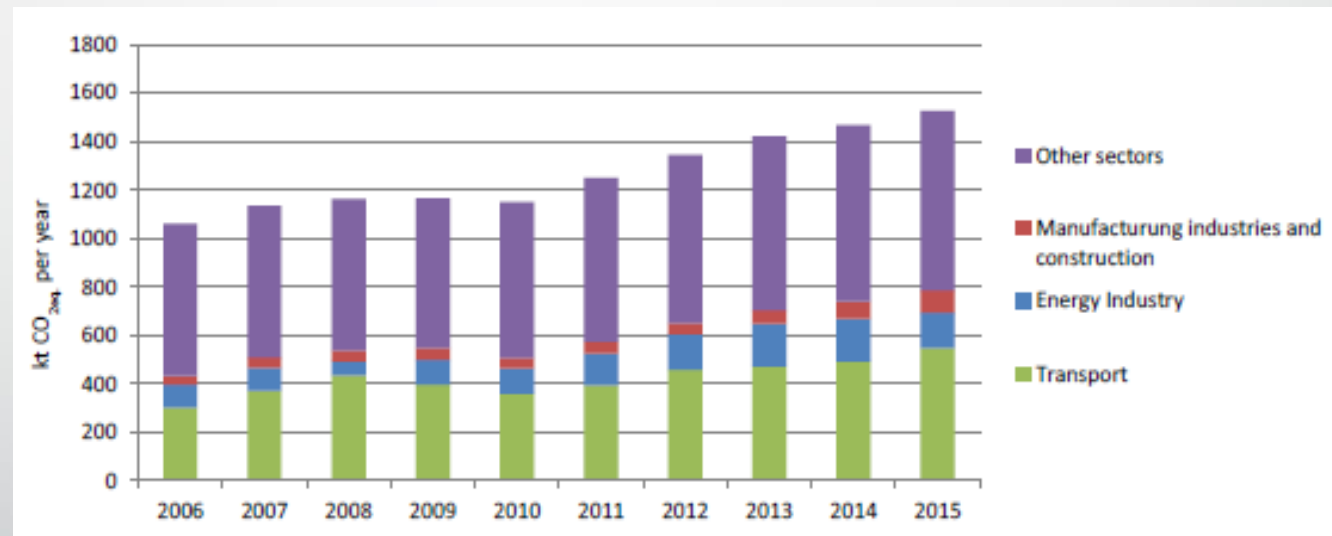
Outlines

- I. Introduction and rationale
- II. Government Agenda
- III. Government support
- IV. Current status of Electric Vehicle fleet in Rwanda
- V. Solutions Plus Project_ CoK
- VI. Other e-mobility initiatives

Introduction & rationale

- Transport sector in Rwanda is rapidly growing and much dependent on imported fossil fuel
- ICE vehicles have negative environmental impact:
 1. air pollution hazardous to health
 2. noise pollution
 3. emission of greenhouse gases that accelerate climate change
- The overdependence on fossil fuel has a strong effect on the trade balance

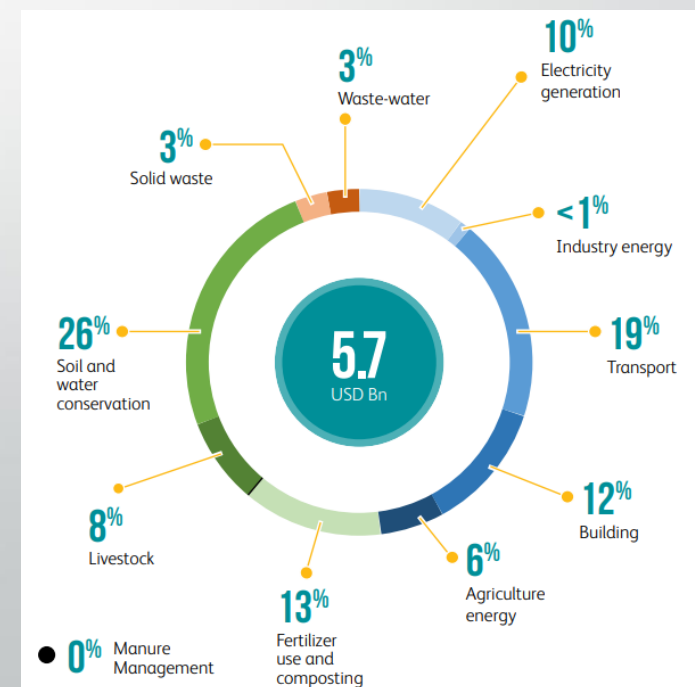
➤ GHG emissions from transport grew from 302kt CO₂eq in 2006 to 547kt CO₂eq in 2015 (6.8% per annum)



Introduction of electric mobility was proposed as one of the solutions to address the aforesaid issues

Government agenda

- Rwanda through Vision 2050, 2020 updated NDCs is encouraging the shift to electric vehicles as part of its climate action plan to promote green mobility and reduce emissions and air pollution.
- As stipulated in the 2020 updated NDCs: GoR's e-mobility programme aimed at achieving a phased adoption of electric buses, passenger vehicles (cars) & motorcycles from 2020 onwards
- The program objective is three-fold:
 - ❖ Reduce air quality degradation and climate change
 - ❖ Reduce dependence on fossil fuels and associated GHG emissions
 - ❖ Use locally produced products
- Total cost for the program including EVs and charging infrastructure is estimated to 900 million USD (19%)



Government support

Fiscal incentives to attract electric transport

Electricity tariff for charging stations are capped at the industrial tariff level (large industry category)

The electric vehicles are benefiting from a reduced tariff during the off-peak time



Exemption of withholding tax of 5% at customs



Electric vehicles, spare parts, batteries and charging station equipment are treated as VAT zero rated products

Exemption of import and excise duties on electric vehicles, spare parts, batteries and charging station equipment



Introduce carbon tax to discourage polluting vehicles



Government support cont'd

Non-fiscal incentives to attract electric transport

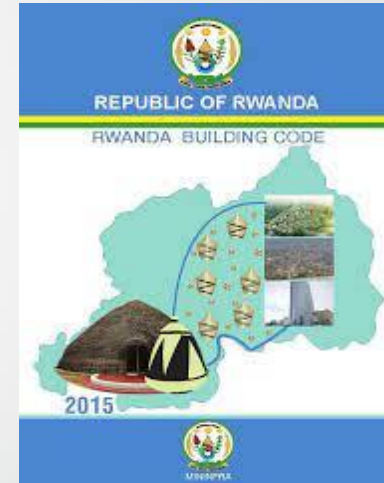


Rent free land for charging stations (for land owned by Government)



Access to High Occupancy Vehicle lanes (Dedicated Bus Lanes)

Provisions of electric vehicle charging stations in the building code and City planning rules



Green license plate to allow EVs getting preferential treatment in parking, free entry into congested zones that will be determined



Free license and authorization for commercial EVs



Government support cont'd

Administrative Measures

1. Enforcement of existing emission standards to discourage the purchase of polluting vehicles
2. Establish restricted zones for green transport
3. Regulate importation of used vehicles by imposing age limit
4. Provide preference to electric vehicles for Government hired vehicles

Other measures

Companies manufacturing and assembling electric vehicles in Rwanda are given other incentives in the investment code such as 15% Corporate Income Tax (CIT) and tax holiday (irrespective of the investment value)

Current Status of Electric Vehicles fleet



Ampersand

- ❖ 779 e- motos in operation
- ❖ 12 charging stations



Victoria Autofast

- ❖ 124 PHEV operational
- ❖ 130 domestic charging infra installed
- ❖ 10 Public Charging station operation



Safi Universal Link

- ❖ 123 e-motos in operation
- ❖ 5 Charging stations
- ❖ 280 e-motos are coming soon



Volkswagen Mobility

- ❖ 20 e-Golfs used for ride-hailing service
- ❖ 2 Public charging stations



Rwanda Electric Motorcycle (REM)

- ❖ 280 e-motos in operation
- ❖ 80 ICE bikes retrofitted
- ❖ 5 Charging stations
- ❖ 32 modern BEV SUV

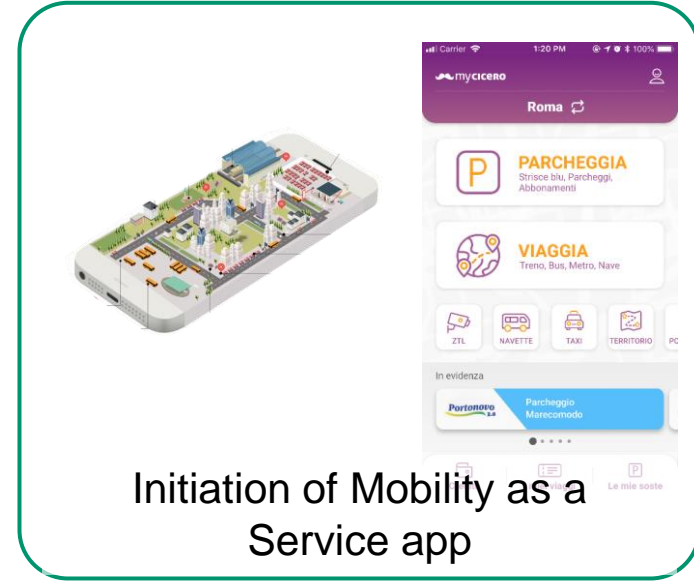




E-mobility projects

SOLUTIONSplus City of Kigali

Project progress and deliverables



Electric motorcycle taxis

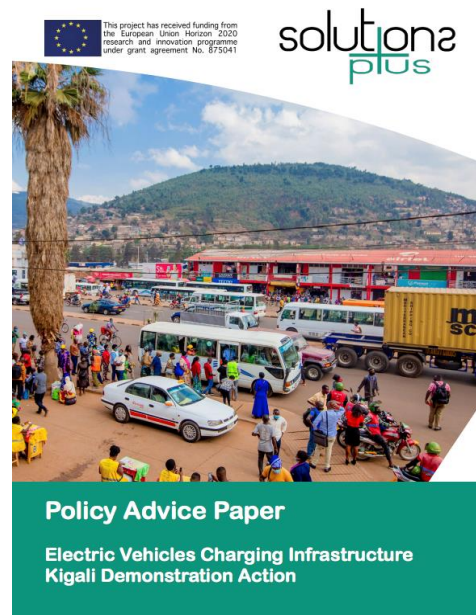
- 24 electric motorcycle taxis financed
- Gender-inclusive component: training for 36 women to become drivers.
- Construction of 80 e-bike racks.



Project progress and deliverables

Setting up of an **E-Mobility Technical Coordination Committee**

- Four times per year
- Dialogue between private and public stakeholders
- Multiple government agencies
- Topics: policies, fleet updates, requests from e-mobility companies, updates from donors and investors
- Review of impact of GoR incentives in the sub sector



Policy advice

REGIONAL TRAINING PROGRAM
AFRICA 2022
Key Aspects towards the advancement of e-mobility in the region

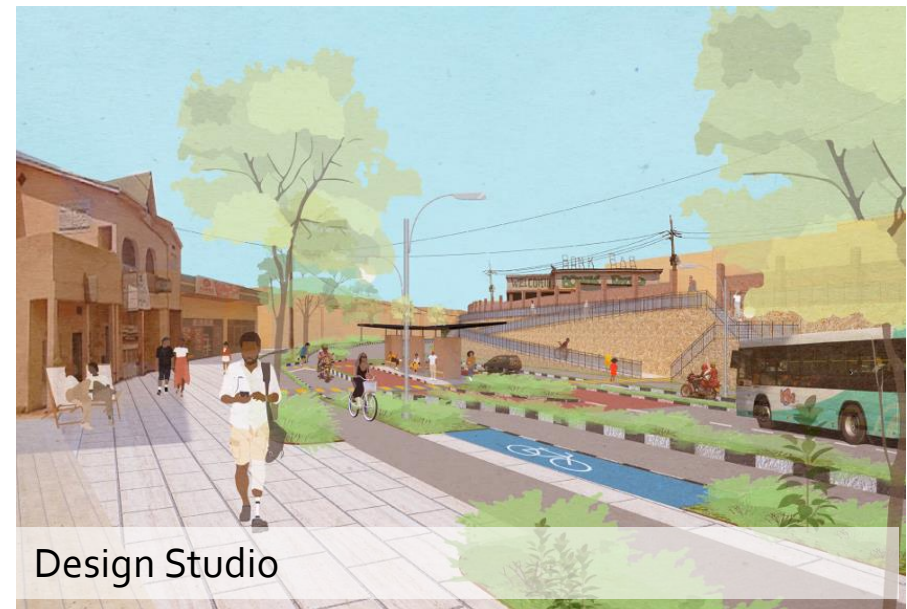
Part 1: Electric 2/3-Wheeler Battery Solutions
17th - 18th October 2022, from 14:00 PM-16:00 PM (East Africa Time)

Part 2: End-of-Life Management of EV batteries
1-2 November 2022, from 14:00 PM-16:00 PM (East Africa Time)

100% virtual on Zoom:
<https://www.solutionsplus.eu/regionaltraining2022>

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Capacity-building activities



Design Studio

Other e-mobility initiatives

1. Electric Bus Concept Validation in Kigali study under finance of IFC

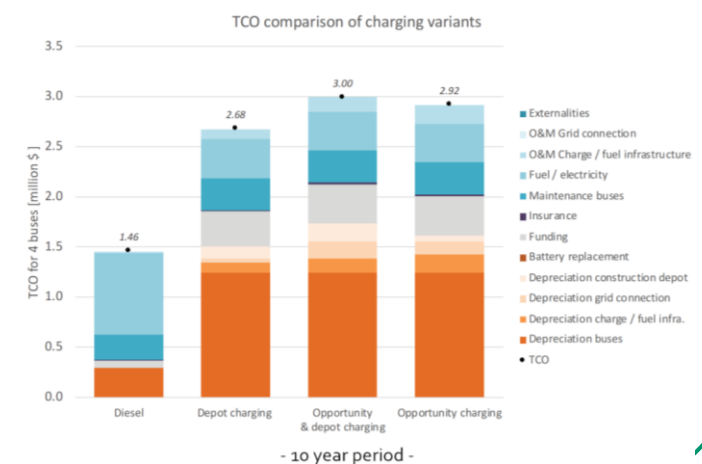
- The study provided a comprehensive analysis and proof of concept on the feasibility of e-buses and e-vehicles as a model for larger scale deployment to the rest of the Rwanda and other parts of Sub-Saharan Africa



Zone	# of buses
Zone 1	51
Zone 2	0
Zone 3	92
Zone 4	19
Total	162

2. Quick Scan Charging Infrastructure for Kigali e-buses under finance of the GGGI

- Feasibility of electrification of buses in Kigali, where all currently existing e-buses charging infrastructure variants were meticulously investigated
- The results of this study provided an insight on initial technology choice for electric bus charging infrastructure for e-buses in Kigali





Thank you

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