

E-mobility sector investment opportunity in Kenya





Acknowledgements















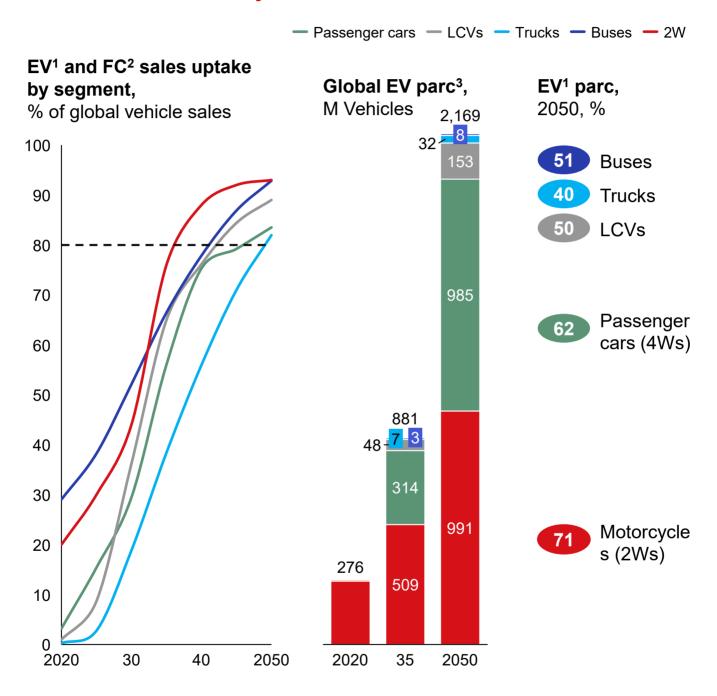
Note: The content in this report is as of September 2025







The global EV market is growing, and is projected to be >80% of all new vehicle sales by 2050



¹ Electric Vehicle including Battery Electric Vehicle (BEV) + Plug-In Hybrid Electric Vehicle (PHEV); assumes that all countries maintain their electrification targets; 2. Fuel Cell; 3. Vehicle parc, also called vehicle population, details the total number of vehicles on the road at a particular moment in time, taking into account how many vehicles get scrapped over the years due to accidents, old age, lack of parts, etc. Note: China accounted for ~70% of e-buses sold and have 100% electrification for city buses

Source: Industry reports; McKinsey Center for Future Mobility (2025, link)





As a result, top manufacturers are transitioning from ICE vehicles to EV production

Car sales by brand, 2023, %

Year of stopping ICE¹ production

** ТОУОТА	Toyota	11	2040 ²
\bigotimes	Volkswagen (VW)	6	2033 (in Europe)
HONDA	Honda	5	2040
Ford	Ford	5	2030 ³
Э НҮППОЯІ	Hyundai	5	2040
NISSAN	Nissan	4	2030 (in Europe)
\$ SUZUKI	Suzuki	4	2030 (20% Japan, 80% Europe, 15% India)
KV	Kia	4	2040
	Chevrolet	3	2035
BYD	BYD	3	Fully transitioned in 2022
	BMW	3	2030 (50% EV target)
Mercedes-Benz	Mercedes-Benz	3	2030 (50% EV target)
0000	Audi	2	20334
TESLA	Tesla	2	No ICE production
RENAULT	Renault	2	2030 (in Europe)



- Shift in consumer preferences for cheaper and sustainable vehicles (e.g., EVs have lower TCOs compared to ICE)
- Governments are also incentivising BEV production, e.g., tax credits and rebates in the US, EU ban on ICE production by 2035
- Most brands are phasing out ICE, slowly replacing them with hybrid vehicles as they anticipate full transition to BEVs
- 1 Internal Combustion Engine (ICE)
- 2 Target set prior to the announcement that Japan plans to stop the sale of new gasoline-powered cars by the mid-2030s. No new target year has been stated by Toyota
- 3 Target has been postponed indefinitely
- 4 Target was retracted in 2025 to accommodate additional ICE production

Source: company websites





SSA ex-SA¹ presents a unique vehicle landscape, with implications for the transition to EVs

Market aspects Insight





2W are a **common mode** of personal and commercial transport (passenger taxi and delivery), accounting for **40-50%** of total vehicle parc

2 Vehicle ownership



Vehicle ownership is relatively low compared to rest of the world², with ownership limited to middle-to-high income earners

3 Used cars



Majority of 4Ws and LCVs sold in Africa are **used** (80%+), only 2Ws are dominantly sold new

4 Road infrastructure



Many cities experience heavy traffic and congestion

5 Electricity mix and reliability



Relatively large reliance on renewable electricity, with high electricity access in urban areas, and occasional grid reliability challenges

Current vehicle owners are mostly in **urban areas** and typically have **access to electricity**, which **supports EV adoption**

However, **adoption likely to be constrained** by two factors in the near-term

Implications for e-mobility

- Affordability of EVs given current car market is dominated by older, low-priced used vehicles
- Supply of used EVs (that might match this price point), which is likely to be low until post-2035

Over the long term, **investment** will be required to **strengthen electricity reliability and supply**

- 1. Sub-Saharan Africa, excluding South Africa
- 2. >30 per 1,000 people compared to ~80 for developing Asia and Middle East

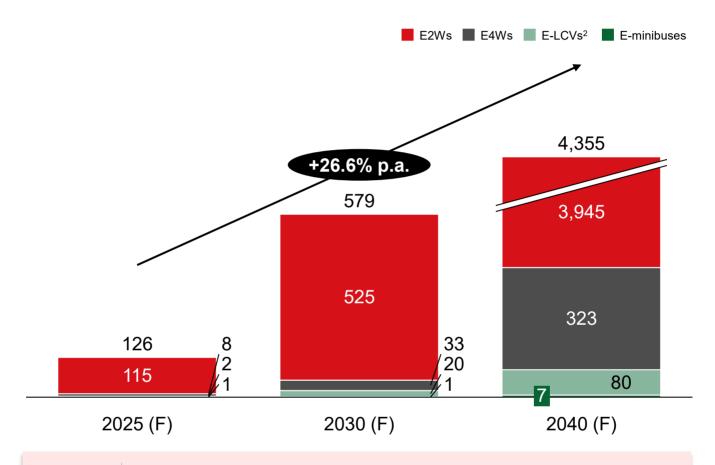
Source: Stakeholder and expert interviews





The EV market is expected to grow by ~27% in the next 15 years across major African markets

Annual expected sales of electric vehicles by segment in 5 countries¹, units, 000





- Ethiopia, Kenya, Nigeria, Rwanda, Uganda make up to 60% of EV sales in sub-Saharan Africa
- E2Ws lead and will continue to lead the EV market in Africa, especially for commercial purposes
- E4Ws are forecasted to grow in 2040; this could potentially be driven by consumer uptake, supporting infrastructure (e.g., charging) and government policies
- E-LCVs and e-minibuses have limited uptake but are expected to grow over time
- 1. The 5 countries represented include Ethiopia, Kenya, Nigeria, Rwanda and Uganda
- 2. Electric light commercial vehicles

Source: Shell Foundation, Financing the transition to electric vehicles in sub-Saharan Africa, 2022, Dalberg





Kenya's unique strengths strategically position it as a key regional e-mobility hub

DETAILED AHEAD

1	Growing demand
	for EVs

High sales potential at 42K – 70K units sold by 2030, primarily driven by **lower Total Cost of ownership (TCO)** vs. ICE

2 Supporting economic indicators

Favourable indicators for EV adoption through key indicators, e.g., high degree of EV market activity

3 Abundant and reliable renewable energy

Reliable renewable energy as baseload with 93% green energy from hydro, geothermal and wind

4 Wide regional market access

Regional export market access, e.g., through EAC's one tariff union

5 Vibrant EV ecosystem

Different types of EV players along the value chain, attracting investments and partnerships



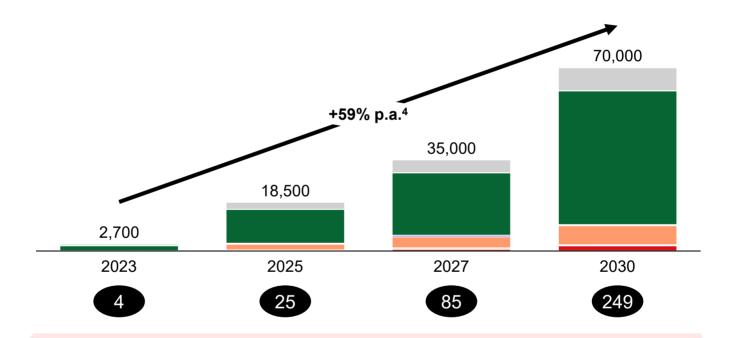




Strong EV demand in Kenya could accelerate local production, with the potential of establishing the country as a regional assembly center



EV sales, annual, total number of units³





- Kenya is **best positioned for E2Ws**, with a ready commercial market anticipating further transition
- Government interventions could drive scale up of BEV-PHEV if government buys pure EV fleet, and could support deployment of e-**Buses** across urban fleets
- E3Ws and BEV LCVs have limited uptake out of all EVs

Compounded Annual Growth Rate (CAGR)



Public sector fleets

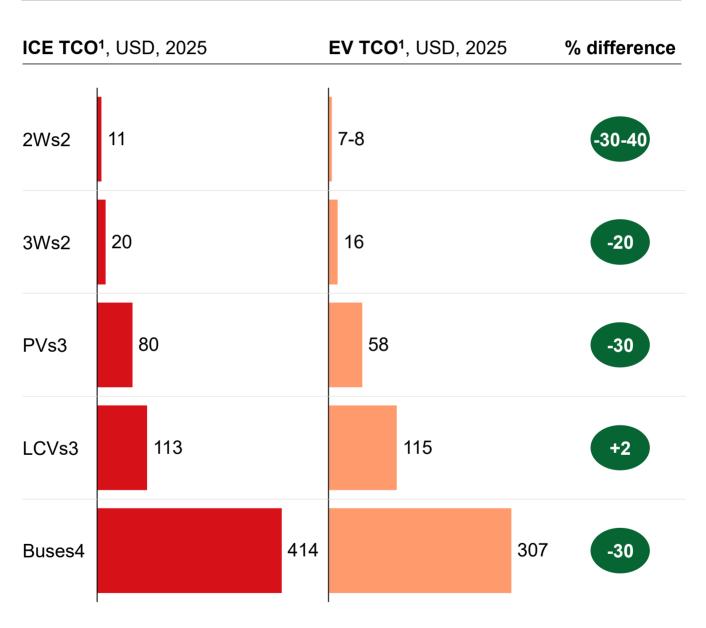
Consumer fleets

Sales scenarios aligns with "high scenarios" of FCDO EV financial model; and assumes tax exemptions across all tax categories-import duty, VAT and excise duties for first 3 years and revert to current rates after



1 Lower total ownership costs could drive rapid adoption of Kenyan-made EVs over ICE models

Total cost of ownership (TCO) in Kenya¹, USD 000, 2025



¹ TCO analysis assumes current/existing EV policy measures are applied (i.e., it is the low-case policy scenario)

Source: E-mobility taskforce (date accessed: 20 June 2024)



² Across useful life of 5 years, EV TCO includes swap and charge

³ Across useful life of 10 years

⁴ Across useful life of 8 years - aligned with the expected lifetime of an E-bus battery



2 Kenya has an edge over peers with favorable economic indicators for EV production

As of 2024

■ E	Beneficial for EV ad	option Moder	ately beneficial for	EV adoption	Slightly unfavoura	ble for EV adoption
	Electricity supply reliability ¹ (0-8)	Electricity price (industry tariffs) ² \$/kWh	Age restriction for used imports Years	Presence of automotive assembly/ manufacturing	Degree of EV market activity	Electrification target
∷ Kenya	5	0.06 - 0.12	8	Yes	High	Aim for 5% of all imported vehicles to be electric in 2025 ³
Rwanda	6	0.08 - 0.1	None	Yes	High	9% of vehicles to be electric with 20% being buses by 2030
Uganda	4	0.08 - 0.12	15	Yes	Medium	N/A
Nigeria	0	0.03 - 0.13	15	Yes	Medium	Complete EV adoption by 2060
Ethiopia	0	0.007 - 0.02	8	Yes	High	2024 ban on importing ICE vehicles

¹ Latest data as of 2020, Reliability of supply and transparency of tariff index

Source: World Bank, ICCT, UNECE, Global Petrol Prices, Africa E-mobility Alliance



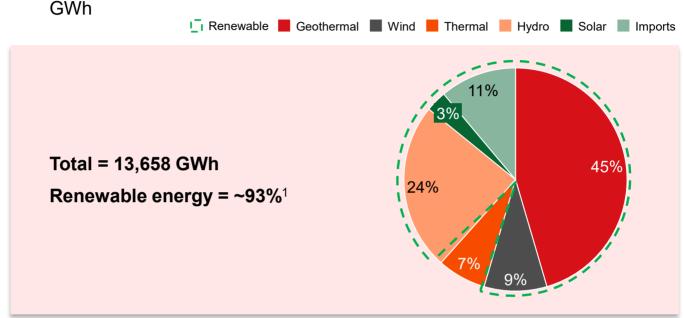
² E-mobility electricity tariff prices applied for Rwanda and Kenya (KES 16 in peak hours); industrial tariffs applied for the rest of the countries that have not implemented e-mobility tariffs

³ National Energy Efficiency and Conservation Strategy (2020)



3 Kenya's 93% renewable energy mix offers a sustainable power base for EV production and use with a 100% goal by 2030

Consumed as of 2024,



Kenya has significant installed renewable capacity

Geothermal

- Current installed capacity is **940 MW**, i.e., <10% of projected potential
- 258 MW commissioned by KenGen in the last 5 years in Olkaria I and V geothermal power plants
- Kenya is projected to have the potential to produce 10,000 MW of geothermal power from the Rift Valley Basin²
- Wind
- Current installed capacity is 436 MW <15% of projected potential
- The United Nations Environment Programme (UNEP) estimates Kenya's wind capacity could be as high as 3,000 MW

Solar

- Current installed capacity is 210 MW
- Annual market in Kenya for solar PV panels estimated at 500 kW and projected to grow at 15% annually³

Hydro

- Current installed capacity is 838 MW
- 1. Breakdown is based on national generation data by energy source as of June 20-22, 2025; as reported by EPRA
- 2. According the IMF publication on Kenya's geothermal potential
- 3. According to USAID publication on Kenya's power sector development

Source: EPRA; Kenya Power, KenGen Annual Report 2023; IMF Country Case 2022; USAID Kenya Power Sector Report (2015)





4 Kenya's EAC membership provides wide regional market access and enables significant scaling opportunities for local EV production





Duty-Free Intra-EAC Trade

Zero tariffs on industrial products such as EV batteries, charging equipment, or assembly parts



Preferential market access

Common External Tariff (CET)¹ **imposes higher tariffs (10-35%) on non-EAC countries** incentivising buyers to source from Kenya



Reduced non-tariff barriers (NTBs)

Removal of non-tariff barriers (e.g., arbitrary inspections), **expediting cross-border EV supply chains**

1. Rwanda has zero import duties on EVs, Kenya and Uganda have 25% import duty on EVs





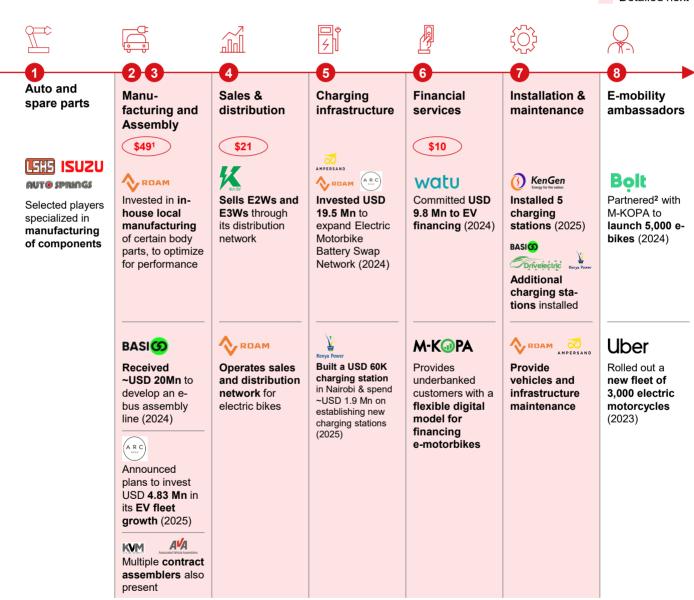
5 Across the e-mobility value chain, Kenya offers a vibrant ecosystem, with partnership and scale-up opportunities

#1 and #2 are medium to long-term investment opportunities, while others in the supply chain are immediate

NOT EXHAUSTIVE, SELECT INVESTMENTS- PLANNED AND EXISTING

X E2W + E4W + E-Bus + LCVs investments in USD Mn, rounded

Detailed next



1. Amounts represent selected investment announcements and are not exhaustive

^{2.} Bolts investment is based on a proportion of M-KOPA's total 250 million USD investment, this number was left out as Bolts exact investment could not be determined





5 There are numerous success stories in the e-mobility sector in Kenya: Roam Electric



A Nairobi-based electric mobility company, which **designs**, **assembles and delivers** electric mobility solutions which are made for the regional market

Roam's core offering includes **electric motorcycles**¹, **buses**, **charging** and **after sales services**, and a **Telemetry** platform





Facility size

10,000 sqm, currently expanding from **100 to 1,000**/vehicles per month

53+ parts made locally for motorcycles

227 full time employees, ~40% female. **97%** East Africa Nationality

Aiming to mitigate 2.2M tons of CO₂ cumulatively by 2023²

How Kenya supported Roam's expansion



Early Engagement & Advocacy: As Chair of the EV subsector at KAM, Roam co-developed key policies (e.g., Legal Notices 112 & 84) supporting local manufacturing and reduced import tariffs



Operational & Regulatory Support: Working closely with NTSA, KRA, and KEBS to streamline registrations and standards, boosting efficiency and scalability



International Collaboration & Visibility: Special Climate Envoy Amb Ali Mohamed and H.E. President Ruto opened Roam Park, the largest EV facility in East Africa



Carbon Market Opportunities: Bilateral deals with countries like Switzerland and Sweden open access to high-value compliance carbon credits for Kenyan green industries



Working closely with the Government of Kenya has been instrumental in our journey, significantly accelerating our growth and enabling substantial market impact. Kenya offers a dynamic and thriving innovation ecosystem, uniquely combining talent, investment, and industry engagement to accelerate business growth

Hans Van Toor, Strategy & Innovation Lead

Locally referred to as boda-bodas
 2. Reference to the second se

2. Roam's internal projection, pending third-party validation



Source: Company interviews



5 There are numerous success stories in the e-mobility sector in Kenya: BasiGo



E-mobility company bringing the future of clean, electric public transport through affordable, locally assembled electric buses and innovative pay-as-you-drive financing





100+ employees, with the ambition to generate 300+ jobs as operations scale

76 buses, **29** charging stations deployed to date

2,108+ tons of CO₂ emissions avoided, carried more than 7.5 million passengers, and driven over 4.5 million kilometers¹

How Kenya supported Roam's expansion



Early engagement with the Ministry of Investment, Trade and Industry and the Kenya Vehicle Manufacturing (KVM) assembly plant in Thika

Other key collaborations



Kenya Power – Collaborated on grid-readiness and charging infrastructure planning



EPRA – Helped define charging tariffs and regulatory standards for electric mobility



NTSA – Ensured electric buses meet national safety and compliance requirements



KRA – Supported local assembly through tax guidance and proper classification of EV components



Kenya offers a compelling entry point into East Africa, combining a dynamic entrepreneurial ecosystem with a strong policy push for innovation and sustainability. The market is young, tech-savvy, and increasingly urban, creating genuine demand for solutions in e-mobility

Moses Nderitu MD Kenya and group CRO

Source: Company interviews





5 There are numerous success stories in the e-mobility sector in Kenya: M-KOPA

M-K@PA

Launched in 2022, M-KOPA provides underbanked customers with a flexible digital model for financing e-motorbikes, including life insurance, medical cover, income protection, free returns and charging vouchers





3,000+
e-bikes financed since 2022

~30%

lower daily cost incurred by e-bike users

2,000+

employees and 30,000+ agents

As of June 2025
 Source: Company interviews



How Kenya supported M-KOPA's expansion

From the outset of their journey in Kenya, M-KOPA has benefited from collaborative engagement with the GoK:



CAK – supported with licensing



KEBS – provided product certification



NTSA – provided authorization as a dealer



CBK – supported with licensing as a digital credit provider



ODPC – supported with registration

Kenya isn't just piloting electric mobility, we're living it. When forward-looking policy meets pay-as-you-go finance, clean transport moves fast. With local assembly lines humming and homegrown tech talent in place, Kenya is the launchpad for Africa's next generation of electric vehicles and proof that growth can be both inclusive and green.

Brian Njao, General Manager – Mobility, M-KOPA



Kenya offers investors a variety of opportunities



Stable economy and leading vibrant democracy



Leading Africa's green transition

~93% renewable energy at competitive rates

>80%

literacy rate



Logistics and innovation hub of the region

international airports

seaports



Young, trainable, and productive workforce



100% repatriation of profits or interests



Robust digital and tech ecosystem aligned with **EU** regulations

50+ active tech hubs countrywide



Incentives for investment and investor protection

Note: As of July 2025

Source: IMF 2024, Kenya Ports Authority 2025, Genesis Analytics 2024, KenGen, World Bank 2023, Kenya Investment Authority 2025





Kenya has received endorsements

Kenya is rated...

Number 1



Greatest investment momentum in Africa in 2024¹



Funding to start-ups in Africa (~ \$638M in 2024)²



Greenfield projects in East Africa in 2023³

Number 3



On Ease of Doing Business in sub-Saharan Africa⁴



Women's financial and economic inclusion in Africa⁵

Number 13



Fastest-growing economy in Africa in 2023⁶

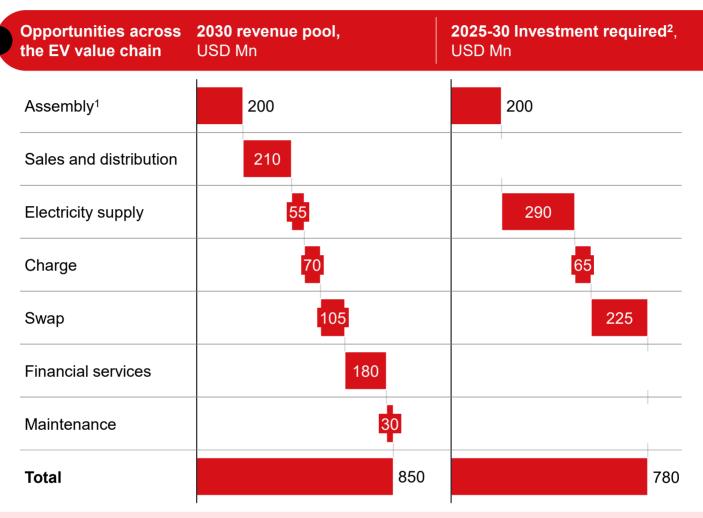
- 1. fDi Intelligence 2024
- 2. Africa: The Big Deal Report 2024
- 3. UNCTAD
- 4. World Bank 2020 2023
- 5. African Center for Economic Transformation
- 6. World Bank 2023

Note: As of September 2025





EV production presents significant opportunities across the value chain, with strong ESG returns



The EV revenue pool could grow...

From ~USD **45-80Mn** in 2025³...



... to ~USD ~850Mn by 2030

Associated ESG returns



~1.5 Mt

CO₂e avoided emissions



~100K

Direct and indirect jobs in the sector

^{8.} Rounded figures. The lower bound assumes minimum sales of 9,000 E2W in 2025 (and total parc of 15,000 E2W), associated with a revenue pool of ~21Mn across manufacturing, assembly, sales and swapping (~60% of revenue) + additional ~15Mn across other stages in the value chain (remaining ~40% of revenue) = USD ~36Mn. The upper limit assumes 2X sales in E2W and other vehicle segments, as per page 11.

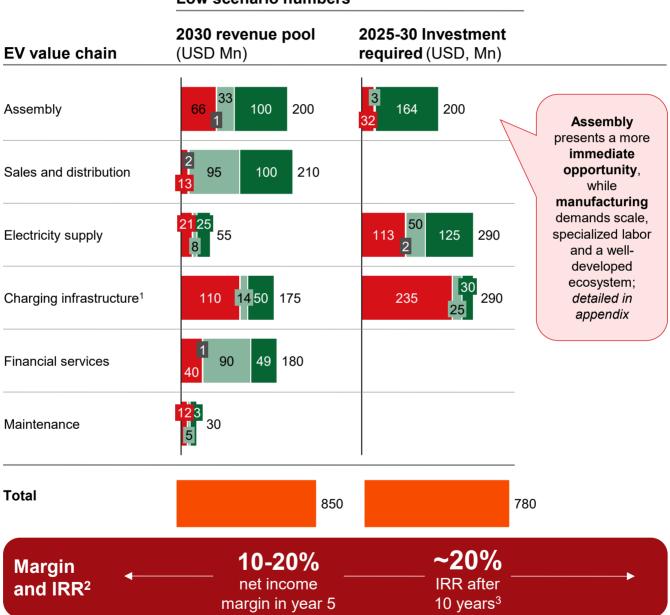


Revenue from sales and distribution are estimated assuming it includes the cost of purchase from assembly, so at an integrated value chain level we would only see revenue from the sales segment onwards (hence figures from Manufacturing/assembly and Sales/distribution are better understood in aggregate); Rounded numbers;



1. Revenue potential and investment opportunity are greatest in E2W and bus assembly and charging





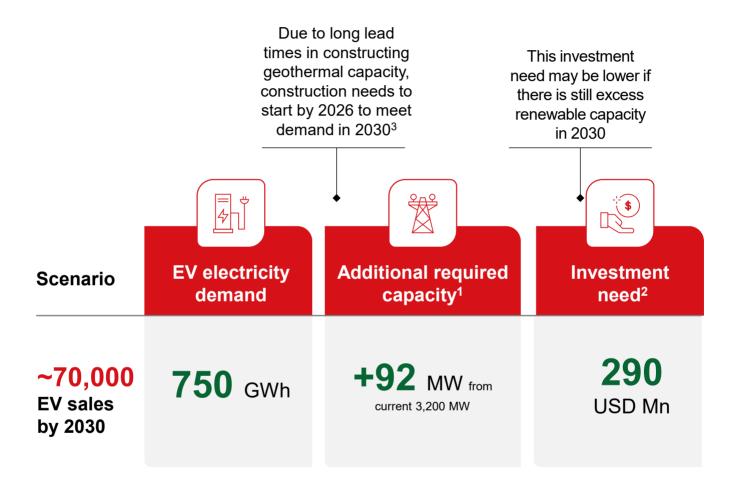
- Including charge and swap
- Margin and IRR figures calculated for E2W investment case across manufacturing/assembly, sales and distribution, charging infrastructure and financial services
- 3. Assumes a "best case" or aggressive scenario. Under a moderate scenario, IRR is estimated at 10%





1. Meeting EV electricity demand presents a ~USD 130-290 Mn investment opportunity in power generation by 2030

Electricity requirements of EVs by 2030



^{3.} Assuming development on already existing geothermal wells, otherwise development takes up to 7 years



^{1.} Assuming an availability rate of 93% based on average availability in Kenya's Olkaria geothermal power plant. If regulations change, it is possible that some of this demand can be fulfilled using cheaper electricity imports from neighbouring countries

^{2.} Assuming an investment need of USD 2,900-3,100/kW of geothermal electricity

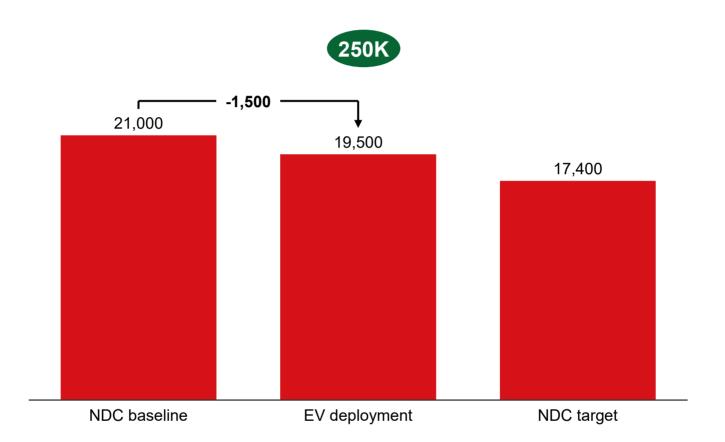


2. Scaling Kenya's EV fleet to 250K by 2030 could avoid ~1.5 MtCO₂e in emissions

Electricity requirements of EVs by 2030

Total EV parc

Total emissions 2030, 000 tonnes CO₂e





An EV parc of ~250K by 2030 is projected to reduce emissions by 1.5MtCO₂e relative to the NDC baseline – ~40% of the sector's 3.46MtCO₂e reduction target for 2030

EV adoption will reduce pollution from combustion of petrol and diesel, improving air quality and reducing related health issues

Source: EPRA, EMAK, EPA, Transport Sector Climate Change Annual Report (GIZ), IQ Air, Greenhouse gas emissions from the transport sector (GIZ TraCS)



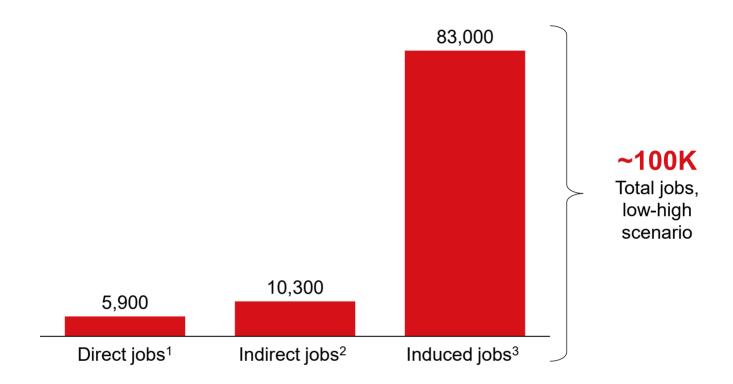
¹ Nationally Determined Contributions



3 Additionally, the shift to EVs could generate close to 100k jobs by 2030

Electricity requirements of EVs by 2030

Jobs created across the EV sector, lower and upper bound in 2030





The EV sector is projected to generate up to ~100K jobs by 2030, depending on government incentives in place

Charging and assembly are expected to create the most jobs along the EV value chain in the short term

However, the growth of the industry is expected to drive **increased manufacturing activity**, creating **higher-value jobs** that require more specialized and skilled labor

- 1. Direct jobs refer to the impacts generated in the tier-1 direct suppliers of the impacted sector; Average multiplier: ~7.5 jobs/\$Mn investment
- 2. Refers to impacts generates in tier-2 to tier-nth impacts, that is, suppliers of suppliers; Average multiplier: ~13 jobs/\$Mn investment
- 3. Impacts generated due to increased household spending by the employees in the supply chain. Average multiplier: ~104 jobs/\$Mn investment

Source: Industry analysis





There are 3 critical enablers for investment in Kenya's e-mobility sector

1 Policies supporting the EV industry

Green-focused strategies create a supportive framework for accelerating EV adoption

Targeted EV policies ranging from higher excise duties on ICE vehicles (2018) to the proposed National E-mobility policy (2024)

2 Sector-specific incentives

Combination of fiscal and non-fiscal incentives, e.g., zero-rated VAT on EVs and quality and safety standards for imports

3 Special Economic Zones

Naivasha Special Economic Zone (1,000 acres) and Tatu City (5,000 acres) provide efficient and cost-effective access to geothermal power and other key infrastructure







1. Proactive green economy and EV strategies in Kenya create a supportive investment climate

Kenya's strategies and policies relating to green and EVs **NOT EXHAUSTIVE**



National Energy Efficiency and Conservation Strategy Increase uptake of EVs to 5% of all imported vehicles annually by 2025



Green Economy Strategy and Implementation Plan (GESIP) Increase resource efficiency in manufacturing



National Climate Change Action Plan (NCCAP): outlines the adoption of E-Mobility as a Priority Transport Action



Updated Nationally Determined Contribution (NDC) Commits to 32% reduction in CO₂e emissions by 2030 relative to business-as-usual scenario



Kenya Vision
Launch environmentrelated projects
including forest and
river rehabilitation,
wildlife conservation
and water
management



National e-mobility policy Outlines comprehensive framework to shift from ICE to EVs (pending Cabinet approval)

Source: GoK strategies and policies



INVESTMENT ENABLERS

1 There has been a positive journey in Kenya towards promoting EV adoption

NOT EXHAUSTIVE

Policies in place that support local EV assembly

2018

Increased excise duty on petrol- and diesel-powered engine motor vehicles

2019

Collaborative pilot programme for 50 E2Ws (Kenya Power, Kisumu County, UNEP, TAILG, Powerhive, Friends of Karura Forest)

2020



Locally-assembled motor vehicles are excluded from excise duty

2021



Kenya Power announced plans to build a nationwide network of public EV charging points



KEBS established dedicated committee (KEBS TC 199 Electric Mobility) mandated to develop e-mobility standards

2022



National Automotive policy – Sessional Paper no.1 of 2022

2023



Kenya Finance Act: zero rated VAT and exempted excise duty on electric bicycles, motorcycles, buses, and lithium-ion batteries



Establishment of the E-Mobility Taskforce to develop National Electric Mobility Policy, Strategy and Regulations

2024



Building Code 2024 mandates that all commercial buildings must incorporate EV charging infrastructure, and KPLC Introduced new EV Power Tariff



The carbon market legal framework - under Climate Change Act and the Carbon Markets Regulations – provides the opportunity for E-mobility carbon projects from charging



Legal notice 84 and 112 – tax procedures for unassembled motor vehicles and trailers, and motorcycles, respectively (reviewed to incorporate electric mobility)

2025



National e-mobility policy: comprehensive framework to shift from ICE to EVs (*pending Cabinet approval*); Automotive bill (2023), *currently under discussion*

 Both KenGen and Kenya Power have commissioned and operationalised public charging stations in Nairobi, Nakuru, Kisumu etc

Source: GoK strategies and policies







2 Incentives in place to promote EV adoption

Dimensions	Initiative	Incentive options in place/ proposed
Comprehensive and flexible framework	1 Bans/phase-out plans for ICE vehicles	8-year car age limit (Provided for within KS 1515)
Fiscal and non- fiscal incentives	2 Taxation	Excise duty reduced to 0% for EVs (E2W, e-buses) and Lithium-Ion batteries; Zero-rated for VAT E2W (bicycles and motorcycles), e-buses and Lithium-Ion batteries ¹ ; Zero import duty on Lithium-Ion batteries
	3 Subsidies/ subsidy removal	"E-mobility" tariff by Kenya Power reduced vs general domestic tariff (KES 16/KES 8 per kWh in peak/off-peak times up to 15K kWh monthly)
Local manufacturing,	4 Local manufacturing incentives	Duty remission for component manufacturers, e.g., seats
assembly and infrastructure capacity	5 Local assembly incentives	Locally assembled EVs and E2Ws exempt from 20% excise duty and 25% import duty²; Select components imported as part of CKD enjoy the privileges accorded to CDK status³
		Enhanced tax incentives proportional to the level of local value addition through assembly – e.g., more favorable incentives for KD3 assembly vs. KD1 – detailed in annex
	6 Infrastructure guidelines	EPRA ⁴ released guidelines for EV charging and battery swapping infrastructure (2023) and regulates power tariffs
Quality and assurance	7 Safety standards	Standards by KEBS ⁵ covering specifications and testing procedures for safety aspects
	8 End-of-life/ E-waste standards	Extended producer responsibility for e-waste streams
Exports	9 Export incentives	Multiple incentives facilitating exports, including corporate and withholding tax holidays, import duty and VAT exceptions, investment deduction, custom facilitation, etc.

Based on 2023 Finance Act;
 Current import duty 35% applicable for 1 year for 4-wheelers;
 Local sourcing mandated for 21 components for 4 wheelers,
 for 2 wheelers (9 applicable for E2W);
 Energy and Petroleum Regulatory Authority;
 Kenya Bureau of Standards

Source: IEA, EPRA, KIPPRA, Draft National e-mobility policy





3 Special Economic Zones in Kenya provide critical infrastructure supporting the e-mobility sector



Naivasha Special Economic Zone (SEZ), Nakuru County

~70 km from Nairobi, Kenya's Capital

1,000-acre multi-sector industrial hub supporting manufacturing

90MW installed capacity, home to TAD Motors – establishing an EV assembly plant within the zone

Uniform electricity tariffs of KES 10 per kWh alongside government incentives



Tatu City (SEZ), Kiambu <20 km from Nairobi, Kenya's

Capital

5,000-acre mixed-use SEZ with **attractive incentives** including zero-rated VAT and withholding tax relief

World-class infrastructure providing reliable power, water, transport links, and ICT connectivity

Growing E-mobility and related ecosystem

66 77

Naivasha SEZ will be a game-changer in the region. We encourage local investors, SMEs, to take advantage of this opportunity and apply for space at the SEZ

Hon. Lee Kinyanjui, Cabinet Secretary MITI

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Tatu City's uptime is currently above 99%, given an unprecedented private investment in East Africa

Alex Kahu, Head of Utilities at Tatu City

Source: EPZA, SEZA





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... and meet the rest of our management team

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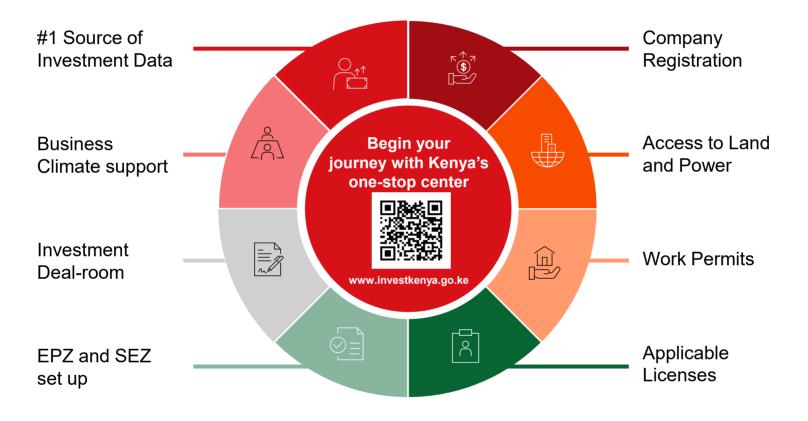
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Appendix





CKD and disaggregated assembly present short-term opportunities in Kenya, relative to manufacturing, which requires substantial scale

Short-term opportunity offering the greatest estimated cost savings for mid-sized market participants

Localization stages	Description	Typical scale, units per year	Considerations
SKD	Components partially assembled by overseas supplier; final assembly locally	<500	 Increased dependency on SKD exporter
CKD	Full assembly happens locally	>500-10,000	 Optimized shipping space/cost Increased complexity in assembly (machinery, processes)
Disaggregated assembly, with minimum local production	Components procured by local assembler; assembly happens locally Disaggregation can be partial (e.g., only battery is assembled, rest is CKD); or full	>10,000- 50,000	 CAPEX intensive Technical expertise/specialized labor Procurement and inventory optimization Localization dependent on component category: Build-to-print components, highly customized parts, requiring releasing access to design and strong local manufacturing ecosystem Proprietary/complex parts: highly specialized components produced at scale
Partial manufacturing, with substantial local production	Some components procured, others manufactured by the local player	>100,000	 Typical large-scale in-house manufacturing includes welding of body parts into the final body, painting, and assembly

Key insights & ∼

For smaller players (<10k units), disaggregated assembly or partial manufacturing usually only happens due to one of the following reasons: vehicle performance modifications (requires in-house engineering), ensuring IP protection of any unique specs, accessing tax exemptions

Source: Expert input based on Indian market experience, cost estimates based on illustrative 2/3W player in East Africa





Details follow

Current 2W regulation enforces local sourcing of components, with existing suppliers able to scale production for E2W

Example for 2W

Examples of existing Relevant supplier in to E2W Category Component Kenya Components Non-structural metal Numerical Machining Complex Limited Kenya is the only African required to be parts e.g., main and country having enforced a sourced locally kick stands, crash regulation¹ on motorcycle under current quards, handle-bar, assembly, offering a 0% regulation1 footrest, brakes rod or CKD² excise duty if specified stopper, headlight stay, components are locally may stay or bar-step sourced, compared to 25% if they are not. As a result, 100% **AUTÓ SPRINGS** Wiring harness of specified components are effectively sourced locally Seats Cost competitiveness with imports is not a **Battery and battery** consideration, as local liquid, acid or fluid sourcing is mandatory given related to traditional the regulation batteries, not specific Suppliers operate at ~36% electric vehicles' capacity on average, leaving batteries room to scale production for new E2W entrants MUTSIMOTO PROPERTY PANTECH Air cleaner filter **Additional Tires** NA components with localization **Shock absorbers** NA potential Plastic components NA Deep-dive on opportunity on next page **Rubber components** NA **Chassis frame** NA **Battery pack** NA

1. The Tax Procedures (Unassembled Motorcycles) Regulations (Legal Notice 112 of 2020), 2. Completely Knocked Down (CKD) kits Source: The Tax Procedures (Unassembled Motorcycles) Regulations (Legal Notice 112 of 2020), Sessional Paper 1 of 2022 on National Automotive Policy – February 2022, Interviews with KAM, APMA, Ampersand, Roam, Toyota CFAO, ARC Ride, MCI, Boda+, press research





Locally producing additional 2W components could be technically feasible

Example for 2W

Example to	or <u>200</u>					
	✓ Crit	eria fully aligned	Criteria	a partly aligned	d Sho	rt term Medium term Long term
		Opportunity	assessmer	nt		
Category	Component	Manageable process complexity and precision	Low set up cost	Labor intensive and not highly skilled	High shipment cost	Rationale and timeline
Additional components with potential opportunities	Tires			\bigcirc	\bigcirc	High process complexity and precision to ensure quality for safety and performance, and specialized machinery required for mixing, molding and curing
	Shock absorbers	0	(<u>()</u>	②	(Moderate complexity with precision required, would require a partnership with another African player that already has the knowledge (e.g., SIA in Tunisia)
	Plastic components e.g., side panels, wire house	\bigcirc	\bigcirc	()		Injection molding capabilities exist in Kenya, mostly for after sales parts but the same machinery could be used with investments in new molds (ongoing discussion)
	Rubber components e.g., handlebar grip, foot peg	\bigcirc	\bigcirc			Small-scale rubber factories exist in Kenya and would require investments to scale and adapt to automotive sector
	Chassis frame	0			\bigcirc	Metalworking capabilities exist in Kenya for 2W non-structural parts, existing local player is developing it, but higher precision and quality required as structural components are critical
	Battery pack assembly	\bigcirc	\bigcirc			Assembly is the easiest step in the battery manufacturing but still requires technology transfer from experienced partner, likely from China, skills exist



Key insights **International investors and suppliers have shown interest** to set up production in Kenya if the regulations are updated

Source: Interviews with KAM, APMA, Ampersand, Roam, Toyota CFAO, ARC Ride, MCI, Boda+





Players can leverage the strong local manufacturing ecosystem in Kenya for sourcing of additional components

Example components for 3 and 4 wheelers

NON-EXHAUSTIVE

Category	Component	Capabilities required	Existing suppliers		
Build to print	Front face	Stamping press and welding	ASSOCIATED VALUE ISUZU		
	Passenger cabin	Stamping press and welding	Large scale metal work capabilities (including standardized processed and machinery) Customization for B2B available		
			MOBIUS		
			Used to make body parts locally – TBD going forward ³		
			KVM		
			Body building, surface branding		
	Canopy	Other metal work	Likely available from suppliers above		
Other parts	Windshield & side mirrors		Provides side mirror and windshield solutions		



Kenya has an **active manufacturing ecosystem** for non-complex components, including build to print and other spare parts; which EV assemblers could leverage to localize of supply

1. Original Equipment Manufacturer, 2. Car and General, 3. Mobius Motors discontinued operations recently Source: Expert interviews; company website





Legal Notice 84 – CKD Breakdown & Duties

KD LEVE	Passenger	Commercial	Description	Applicable duties and taxes
CBU	Age limit 8 year	KS 1515 is seeking to limit age to 0 years on buses and Prime movers	Imported built units	Import Duty – 35% Excise Duty – 20% VAT - 16% IDF – 2.0% RDL – 2.5%
DKD	Not Allowed	Not Allowed	Disassembled fully built units – Bumpers, engine, transmission & rear-axle adrift	
DK1	✓ Allowed	Not Allowed	 Body & Drivetrain adrift, body fully painted & trimmed. Allowable for 2 years, then must be transitioned to KD2. 	Import Duty – 0% Excise Duty – 00% VAT - 16% IDF – 2.0% RDL – 2.5%
KD2	Allowed	Allowed	 Painted welded cab, rear body and chassis devoid of trim, electrical and mechanical attachment. Side members supplied loose for riveted or bolted truck or bus chassis frame. Pick-ups and SUV - Chassis to come welded and painted. Other components in condition available from OEM & part suppliers. Including monocoque mono-construction chassis/bodies for mini-buses. 	NDL - 2.370
KD3	Allowed	Allowed	 Cab, rear body and chassis supplied in sub-assemblies for welding and painting; Untrimmed. Side members supplied loose for riveted or bolted truck or bus chassis frame. Pick-ups and SUV - Chassis to come welded and painted. Other components in condition available from OEM & part suppliers. Including monocoque monoconstruction chassis/bodies for mini-buses. 	
KD4	Not Yet	Not Yet	Pressed panels, forged components etc. in Country	

Source: Legal Notice 84





Additional enablers as proposed by stakeholders (1/3)

Provisions in the national e-mobility policy

Dimensions	Initiative	Proposed incentive options
Comprehensive and flexible framework	1 Government targets	5% of all registered vehicles to be EVs¹; COP26 Declaration – work intensely towards accelerated proliferation and adoption of zero-emission vehicles
	2 Bans/phase-out plans for ICE vehicles	Only new ICE vehicles to be allowed
	3 Public-private partnerships	3 PPP rail electrification projects supported by a PPP framework
Fiscal and non-fiscal incentives	4 Government preferential procurement	Number of EV GoK fleet to reach 3,000 – 2% locally sourced
	5 Taxation	Reduced stamp duty for EV infrastructure projects; VAT exemption for EVs
	6 Access benefits	Special number plates to give access to designated parking spaces and noise-level-controlled areas; Green traffic zones and parking bays, expedited access to green channels for import & export

1. National Energy Efficiency and Conservation Strategy (2020) Source: IEA, EPRA, KIPPRA, Draft National e-mobility policy





Additional enablers as proposed by stakeholders (2/3)

Provisions in the national e-mobility policy

I	Dimensions	Init	iative	Proposed incentive options	
	Local manufacturing assembly and infrastructure capacity	7	Local manufacturing requirements	\bigcirc	KenGen to recycle lithium- ion batteries ² 80% local assembly of EVs
		8	Local enablers	⊘	Investments in R&D of commercially viable EVs, batteries and charging stations; SEZs and industrial parks, EV-accredited curriculum/module at TVET/universities
		9	Energy infrastructure	(Energy generated from 100% renewable sources
		10	Charging infrastructure		1,000 charging stations mostly for E4Ws (700 in urban areas, 300 along highways)
					Concessional land rates for public charging stations, allocation/identification of public spaces

¹ KenGen is planning to recycle lithium-ion batteries as part of its efforts to support the Kenyan government's goal of increasing the number of EVs, with a research project initiated to explore the feasibility of recycling or reusing these batteries.







Additional enablers as proposed by stakeholders (3/3)

Provisions in the national e-mobility policy

Dimensions

Initiative

Proposed incentive options

Quality and assurance



Technical standards, including interoperability

- Standards by KEBS¹ covering specifications and testing procedures for performance and power consumption elements
- Charging stations to have variety of connectors for different EVs
- Only qualified personnel to operate and maintain stations (EPRA)
- All charging and battery swapping stations to **display** prices
- 12 ESG standards
- Regular inspections of motor vehicles to ensure **control of emissions**; also through the proposed Traffic (Motor Vehicle Inspection) Rules of 2025²
- Develop affirmative action programs targeting disadvantaged groups in e-mobility
- Registration benefits
- Waived fees for EVs

Source: IEA, EPRA, KIPPRA, Draft National e-mobility policy



¹ Kenya National Bureau of Standards

² The proposed Kenyan Traffic (Motor Vehicle Inspection) Rules of 2025 introduce mandatory vehicle inspections to enhance road safety and reduce emissions



Terminology



"Parc" refers to the total stock of vehicles on the road



2Ws go by different names in different countries and are referred to here as boda *bodas*, *bodas*, *or okadas*



Minibuses (14-seater passenger vehicles) go by different names in different countries & are referred to here as danfos or matatus



4Ws typically denote a passenger car/SUV/station wagon; occasionally, these are referred to generically as "cars"



LCVs are vehicles less than 3.5 tons, including panel vans, utility vans, and pick-ups



"Used" refers to used vehicles (vehicles that have already been driven and then re-sold)



EVs here typically refer to BEVs unless otherwise specified





Abbreviations

2W	Two-wheeler
3W	Three-wheeler
4W	Four-wheeler
BEV	Battery electric vehicle
CAGR	Compound annual growth rate
CO2e	Carbon dioxide
E2W	Electric two-wheeler
E4W	Electric four-wheeler
E-LCV	Electric light commercial vehicle
E-minibus	Electric minibus
EV	Electric vehicle
FCEV	Fuel cell electric vehicle
FDI	Foreign direct investment
g	Gram
GDP	Gross domestic product
HEV	Hybrid electric vehicle
ICE	Internal combustion engine
KES	Kenyan Shilling
km	Kilometer
Kwh	Kilowatt hour
LCV	Light commercial vehicle
LPG	Liquified petroleum gas
MHEV	Mild hybrid electric vehicle
PC	Passenger car
PHEV	Plug-in hybrid electric vehicle
SSA	Sub-Saharan Africa
TCO	Total cost of ownership
\$	US Dollar
VAT	Value-added tax





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