NoMAP
Nigeria Off-Grid Market Acceleration Program

www.offgridmap.ng

Sizing the Opportunity

EV Market Trends, Consumer Insights, and Demand Drivers in Nigeria

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Nigeria Off-Grid Market Acceleration Program (NoMAP)

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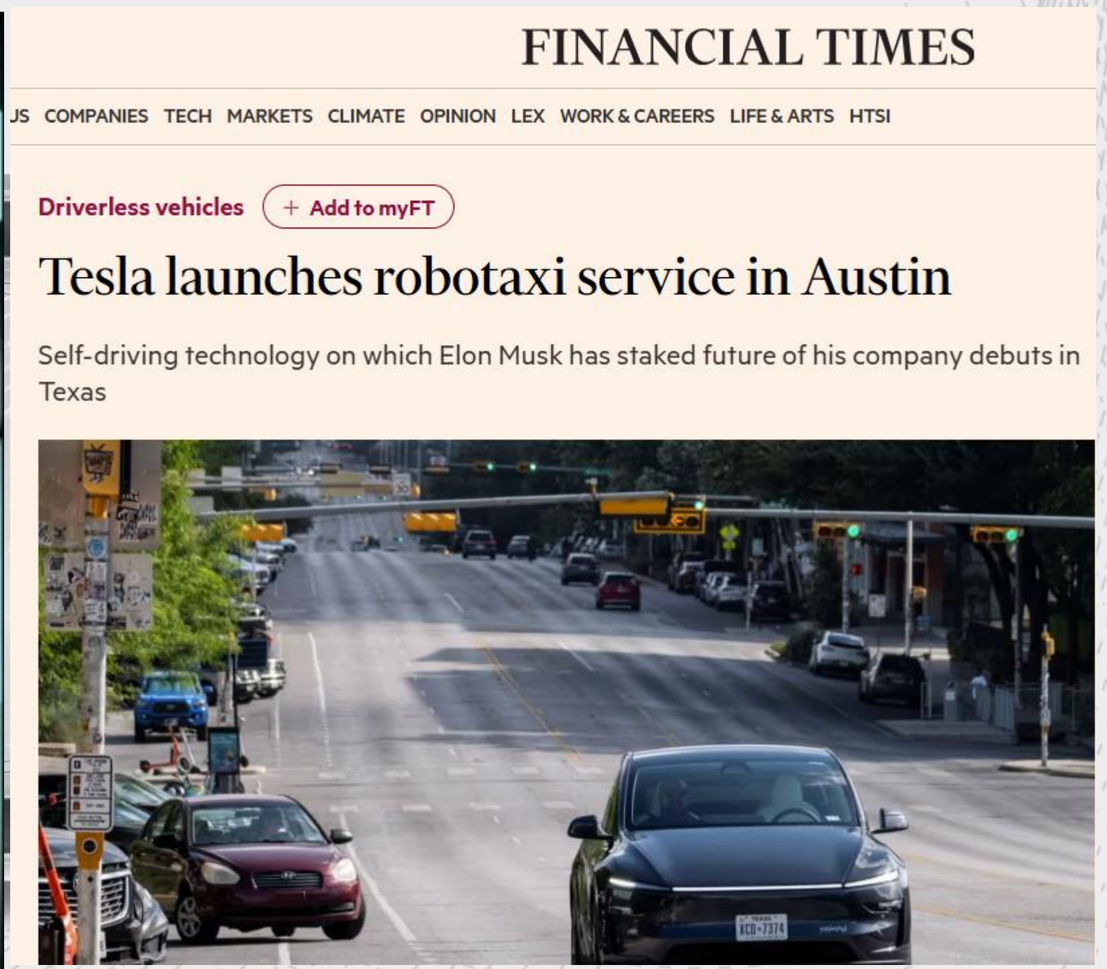
Year: 2000

Year: 2025



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Year: 2000

One day Cars will run on water

Year: 2025

H_2

Winnipeg Launches Canada's First Hydrogen and Battery-Electric Articulated Buses

By Fuel Cells Works
August 8, 2025 at 11:09 AM EDT

Listen 3:15

Photo: City of Winnipeg

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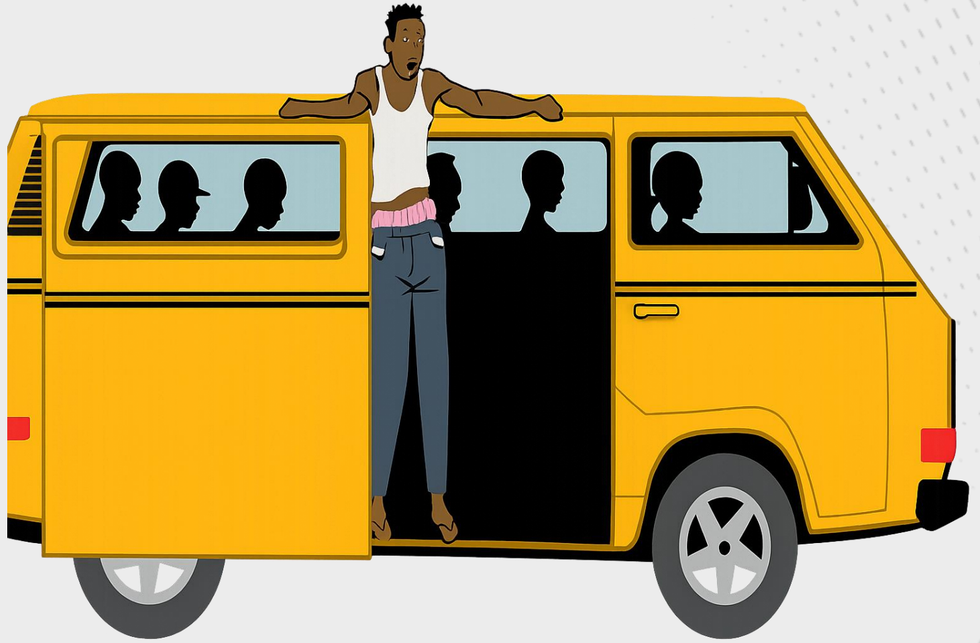
Nigeria Transport Challenges



Nigeria's transportation sector is largely fragmented, mostly private sector driven, but with emerging Public-Private Intervention in urban mass transportation

High Fuel Cost

PMS prices have surged by approximately 640% over the past five years, significantly increasing fuel costs.

High upfront Cost

With limited financing options, most vehicle owners pay the full purchase price in cash.

Depreciating Currency

The Naira has depreciated by about 420% in the last 5 years

Low Purchasing Power

Real Income have been eroded with inflation peaking at 34.8% and currently at 22.2%

Import Dependence

Nigeria imports nearly all of its vehicles and parts, thereby heightening its economic vulnerability.

High Emissions

Transport emits ~59 $MtCO_2e$ yearly, 28% of Nigeria's total emissions.

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THE GLOBAL GROWTH OF ELECTRIC VEHICLES

The shift toward electric mobility is accelerating, driven by **climate commitments**, rapid **battery cost declines**, and **growing consumer acceptance**. Major economies are phasing out internal combustion engine (ICE) vehicles, creating both a technological wave and an investment race.

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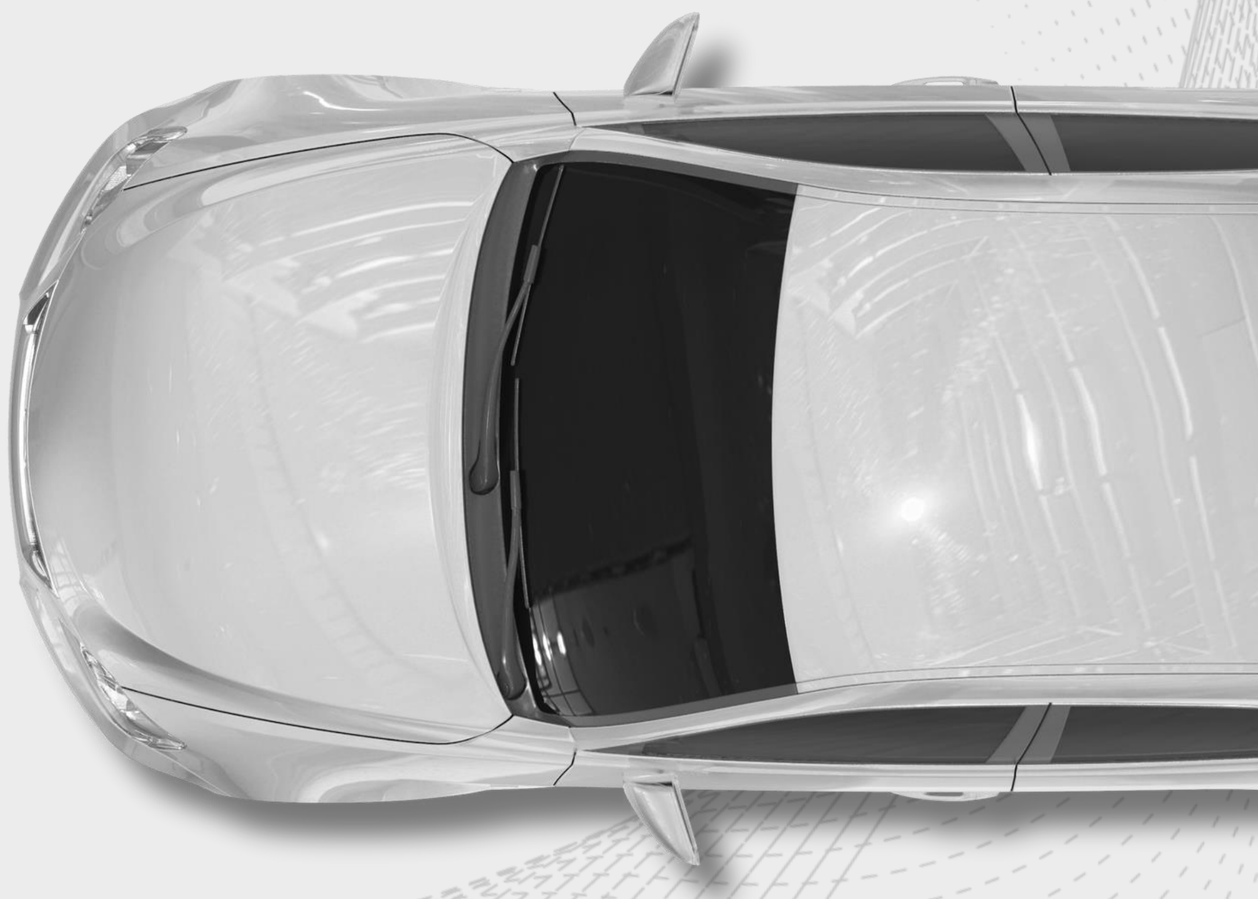
Why this matters!

Sizing the EV market now allows policymakers, investors, and operators to identify the most viable entry points, such as 2-wheelers, 3-wheelers, fleet buses, etc. align infrastructure planning, and attract financing before the market matures.

Nigeria's Energy Transition Plan (ETP) aims to achieve net zero emissions by 2060 by gradually reducing the country's high dependence on fossil fuel-based vehicles and shifting to a sustainable, low-emission transportation System.



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Policy Framework

Nigerian Energy Transition Plan

- Outlines the nation's objectives and pathway to simultaneously achieving carbon neutrality and tackling energy poverty by 2060

National Automotive Design and Development Council (NADDC)

- Fostering Nigeria's EV transition, mainly through the development and implementation of supportive policies for the sector.
- The NADDC is also working to establish EV charging infrastructure
- In 2023, the NADDC adopted a new 10-year Nigerian Automotive Industry Development Plan (NAIDP), which includes incentives to scale up EV adoption in Nigeria.

Tax Incentives

Tax relief for EV manufacturers and licensing requirements established for auto assembly plants in the country.

Import Duty

Import duty and tax exemptions for EVs and their components.

EV Infrastructure Support

NADDC is working on building charging infrastructure, including solar-powered charging stations.

Local Production

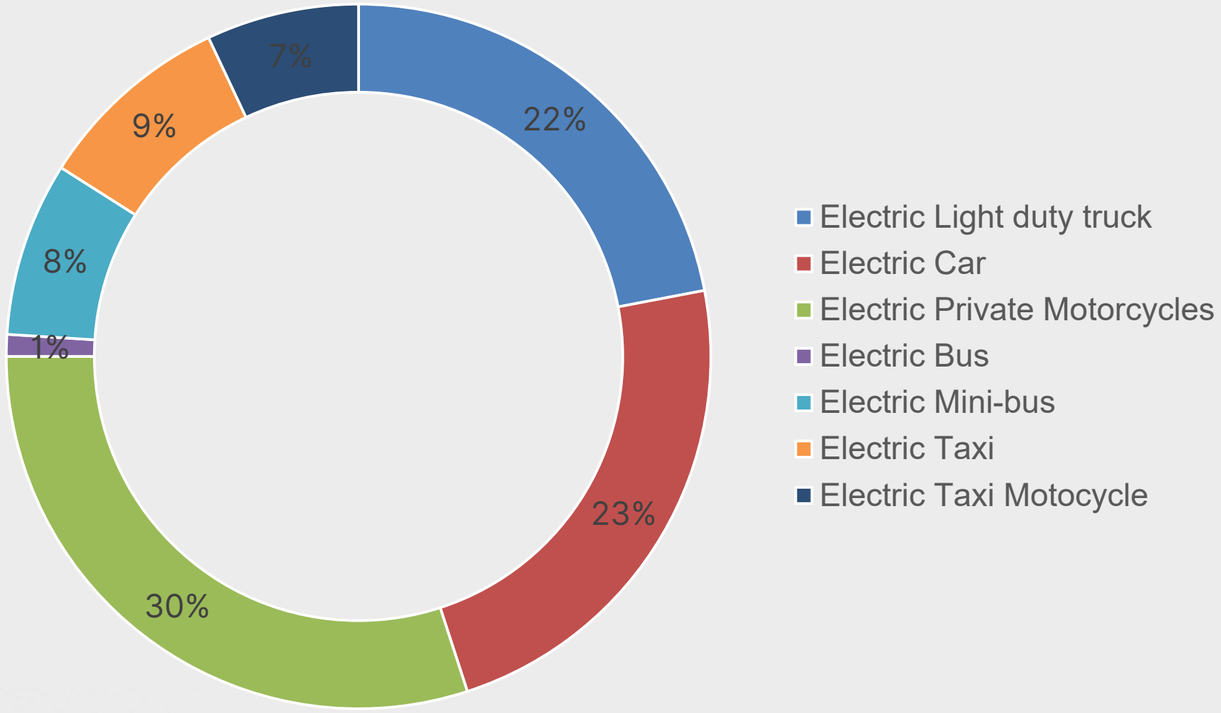
Establishment of EV and Compressed Natural Gas (CNG) assembly plants, with a target of 30% domestically produced EVs by 2032.

Market Sizing

In this scenario of proactive policy, about 30% of all public transport Mode-share, 35% of all private transport mode-share, and 5-10% of all freight mode-share could be transitioned to EVs by 2050.

- **9.9** million EVs could be in circulation in West Africa by **2050.**
- Nigeria's Economy makes up around **66%** of the total GDP
- Charging these vehicles will require nearly **986,000** EV chargers
- West Africa's electricity demand would require about **US$20 billion** investment in generation and grid infrastructure alone – excluding investment in charging infrastructure.

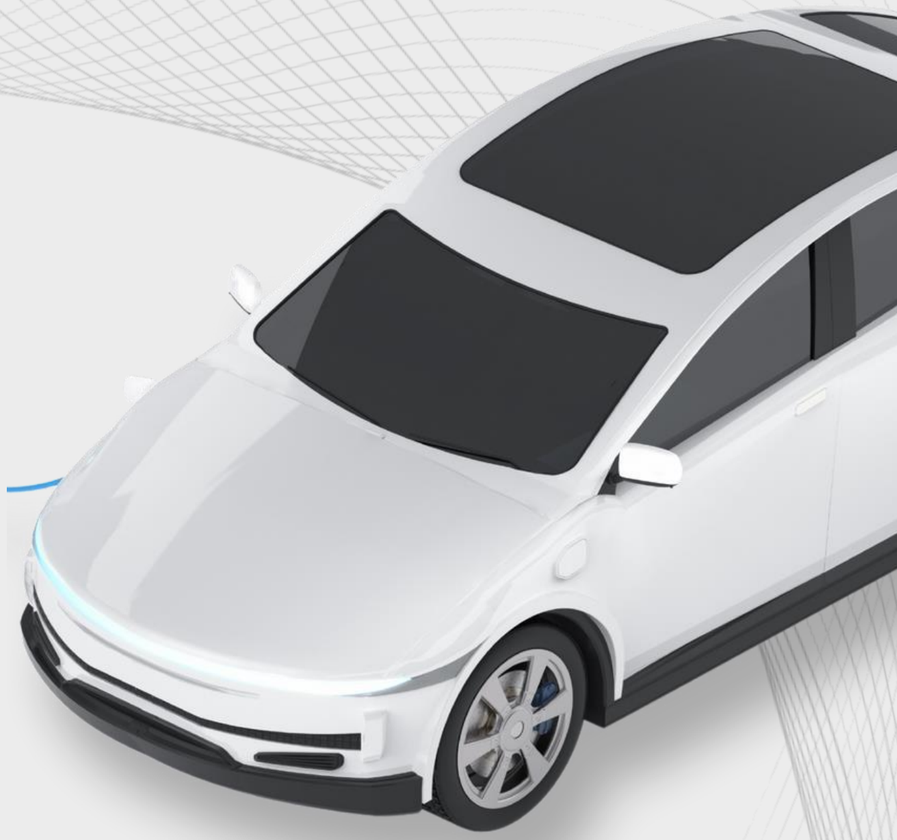
Projected EV fleet by vehicle type in West Africa, 2050



Source: Energy for Grwoth Hub

Market Segments

Category	2 & 3 Wheel	4 Wheels	Buses	Trucks
Estimated %	44%			
Estimated Volume	8-10 million	5-7 milllion	40- 70 Thousand	40-75 Thousand
Financing Model	• Upfront Purchase • Lease/ Rent • Hire Purchase	• Upfront Purchase	• Public–Private Partnerships (PPP)	Partnerships ; Eg. Sinotruck and BHN
E-types	• e-Bicycles • e-Motorcycles • e-Keke	• Electric cars • Light commercial vehicles	Articulated Buses	E- trucks



Source: Get Invest Market Insights, NoMAP Research

2 & 3 Wheelers

Category	2 & 3 Wheelers
Uses	Commercial transportation in both urban and rural areas.
Members	14 million registered members of the National Commercial Motorcycle and Tricycle Owners and Riders Association of Nigeria
Some companies invested in this segment	**Bikee** - Logistics **ThinkBikes** – Local manufacturing, ride sharing, logistics. **Spiro** – Partnership with Ogun State Government (ebikes and battery swap stations) **Max NG** – E-bikes in partnership with the FG
Interventions	**UK FCDO** - LINKS programme – Catalysing Economic Growth for Northern Nigeria – launched a three-wheel EV pilot project in Kano in partnership with Sterling Bank and two local women's cooperatives (the programme closed in 2023 due to FCDO budget cuts) AfDB-funded Green Mobility Facility for Africa (GMFA). DBN has provided funding for MSMEs in Nigeria involved in the production, distribution or servicing of EVs and related infrastructure REA/ World Bank DARES Project – Productive Use of Energy Compenent
Financing Model	• Upfront Purchase • Lease/ Rent • Hire Purchase

Buses

Category	Buses
E-types	Articulated Buses
Uses	Public Transportation
Estimated %	
Estimated Volume	Lagos state BRT - 20 million passengers 358 buses carrying an average of 60,000 passengers daily
States Adopting E-Buses	• Lagos – Pilot Phase • Edo – Announcement • Borno State – Conversion from Petrol to solar Powered
Financing Model	• Public–Private Partnerships (PPP)

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Market Operators

E2Ws E3Ws

- ThinkBikes
- max
- TYNU
- phoenix
- EMVO THE ELECTRIC MOTOR VEHICLE COMPANY
- SANGO TECHNOLOGY
- SOLTECH WORLD

Manufacturing/ Assembly

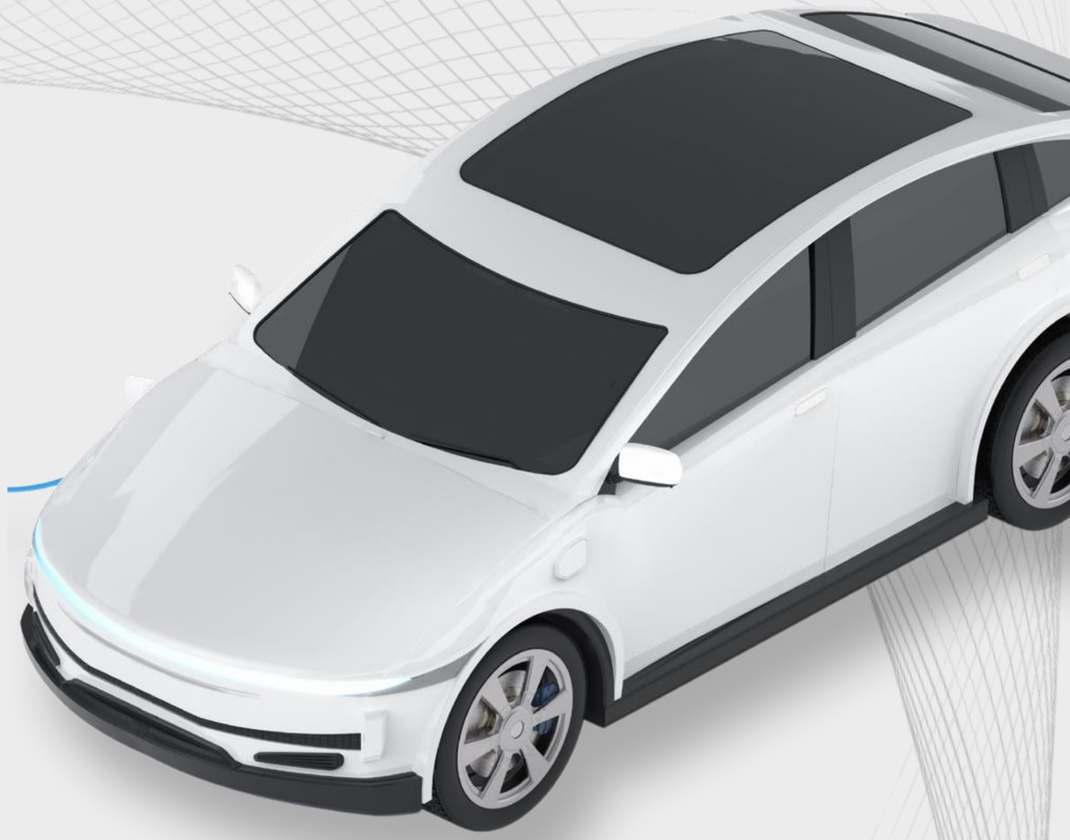
- SOLTECH WORLD
- LANRE SHITTU MOTORS
- OMAA
- EMVO THE ELECTRIC MOTOR VEHICLE COMPANY
- ThinkBikes
- bob
- POSSIBLE EVS

EV Charging

- ardova plc
- SOLTECH WORLD
- POSSIBLE EVS
- QORAY
- Oando Clean Energy

E4Ws, E-buses

- EMVO THE ELECTRIC MOTOR VEHICLE COMPANY
- POSSIBLE EVS
- QORAY
- Oando Clean Energy
- LANRE SHITTU MOTORS
- Hyundai



*Not Exhaustive

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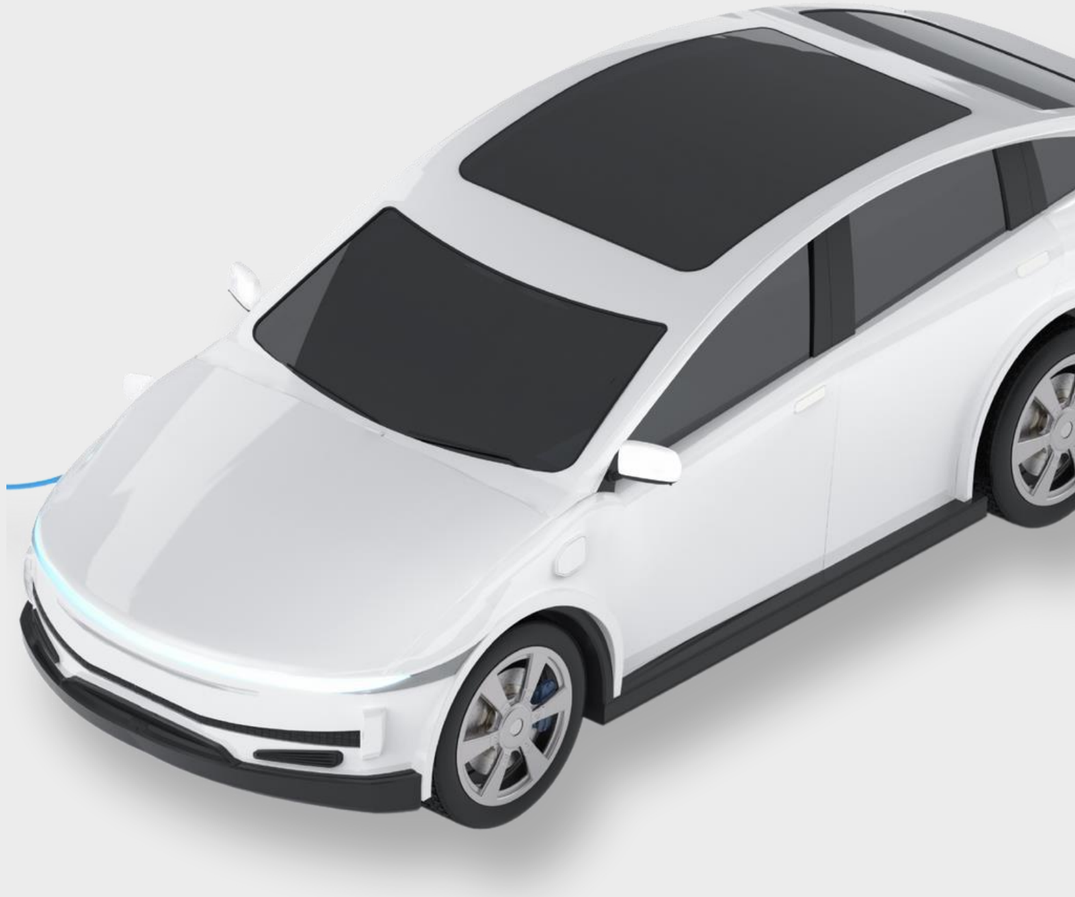
Case Study: E-Cars Adoption in Nigeria

Organization	Financial Institution
Current State	• Ageing Fleet • Huge cost of repairs • Rising fuel cost
Dilemma	• Huge replacement Cost • Potential unsustainable
Decision	• Replaced fleet with 20 EVs (BYD) • Installed charging infrastructure
Rationale	• Landing cost at 1/3 of the price of ICE equivalent • No Import duties • Charging on the company's existing power infrastructure • Very low maintenance • ESG Compliant



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Challenges

Electric vehicle adoption in Nigeria faces a range of barriers that hinder market growth all of which slow down the transition to cleaner mobility solutions.

Consumer Awareness

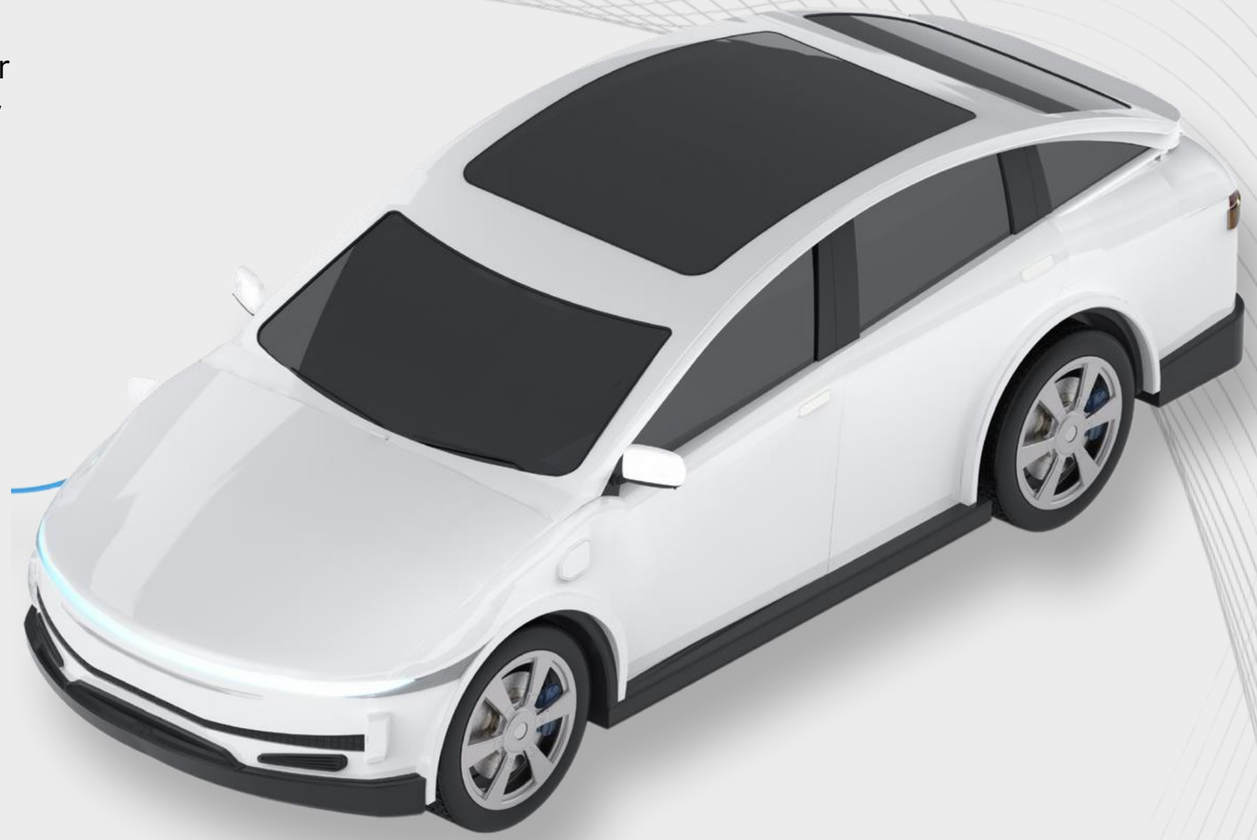
- Consumer awareness of the benefits of EVs in Nigeria is also generally low.

Affordability

- A large share of Nigerians live below the poverty line
- Most vehicles on the road are pre-owned

Low access to stable electricity supply remain key market barriers

- Approximately 40% of the population lacks access to electricity
- Lack of charging infrastructure, range limitations



Opportunities

The electric vehicle (EV) transition in Nigeria offers a unique growth frontier for major energy marketers, with opportunities that extend beyond fuel replacement into infrastructure, manufacturing, and mobility services. With the federal government's EV-friendly policies, rising urban transport demand, and increasing investor interest, energy companies are well-positioned to lead market-shaping initiatives such as:

Charging Infrastructure

Including battery swapping networks to serve Evs and three-wheels and especially fleet operators.

E-Buses

Partnership with Sub-nationals to deploy E-buses tapping into growing demand for efficient, low-emission public transport.

Battery Manufacturing

to localize value chains, reduce import dependence, and capture a share of Africa's emerging e-mobility supply market.

2 & 3 Wheelers

Nigeria would benefit from an EV policy prioritizing two- and three-wheelers, which are more affordable, easier to adopt, and better suited to the country's immediate needs

Investment in Mini-grids

With the significant access gap in rural Nigeria, There are opportunities to invest in minigrids that would power the charging and swapping stations.

THANK YOU