

THE C-SUITE INTELLIGENCE

NATIONAL ELECTRIC MOBILITY ROADMAP OF GHANA

Ghana Aims 32% of EVs Penetration by 2032

Ghana Targets to become a Zero
Petrol/Diesel Vehicle Region by 2045

NATIONAL ELECTRIC MOBILITY ROADMAP-GHANA

By 2035 Ghana aims to ensure that 60% of the government’s vehicle fleet is comprised of electric vehicles

February 10, 2025

By Ravi Shekhar & Nitika Sharma

ROADMAP FOR ELECTRIC BUSES IN GHANA

E-buses are one of the emerging technologies that offer opportunities to design an efficient transport system in terms of technology and fuel shift and economic incentives that can strongly contribute to economic transformation. The Ministry of Transport has proposed various targets for deployment and diffusion of the e-intracity bus technology. The government has committed to introducing one-thousand (1,000) electric buses and related charging and maintenance infrastructure for intra-city (40%) and intercity (60%) transport services within the short term period. The first phase involves the supply, operation and maintenance of five hundred (500) Complete Built Unit (CBU) electric buses for intra and intercity transport services which would be delivered in five (5) batches. The second phase involves the supply of five hundred (500) Semi-Knocked-Down (SKD) buses and assembly in Ghana in partnership with local assemblers.

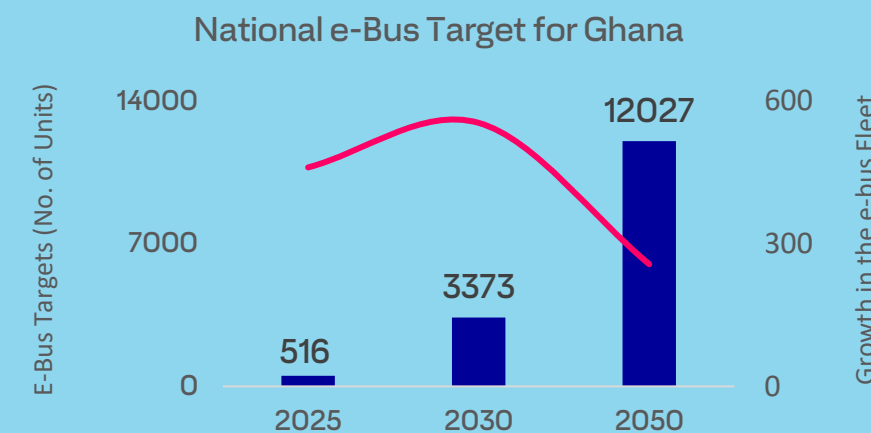
In November 2024, Ghana rolled out its first batch e-Buses

Ghana made history with the commissioning of its first batch of electric buses for Metro Mass Transit Limited. The initiative marks a significant shift towards a more sustainable and innovative public transportation system.

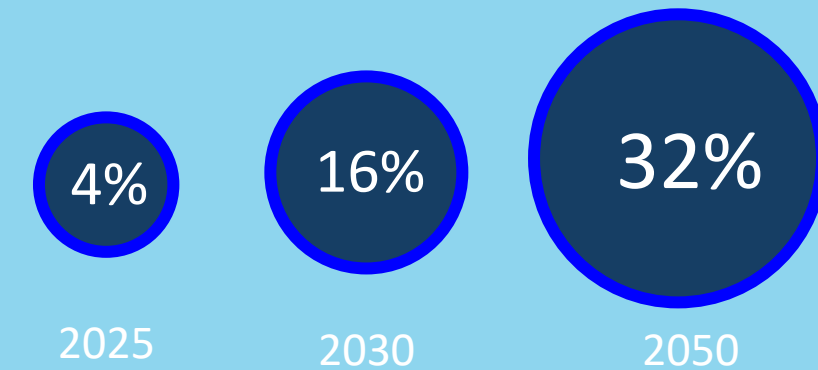
Exhibit 01

Electric Buses & Cars Target for Ghana till 2050

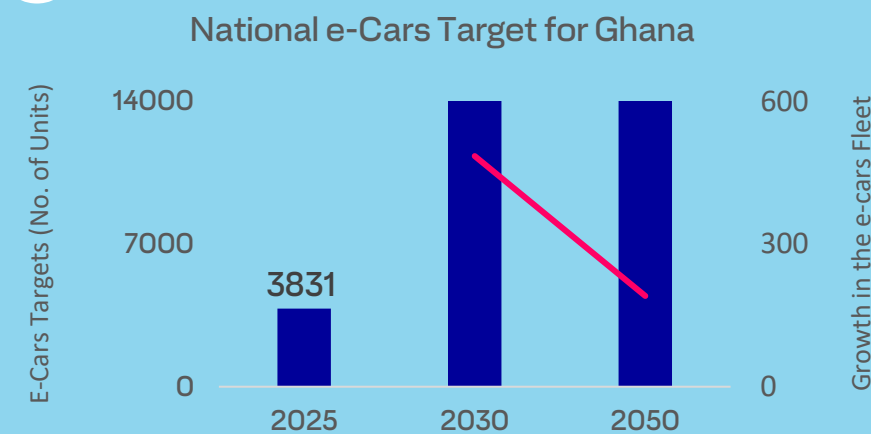
1 12,027 e-Bus on road by 2050



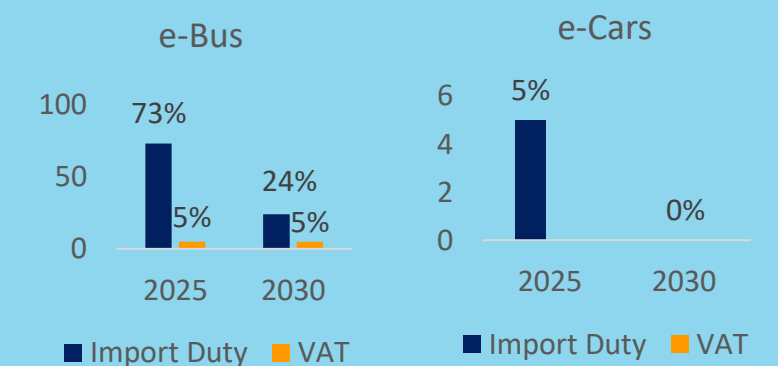
3 EV Penetration Targeted in Ghana



2 65,176 e-Cars on road by 2050



4 Import Duty Waivers (%) Proposed for e-Buses & e-Cars in Ghana



Source: eninrac consulting, NEM Roadmap Ghana

Implementation Phases for the National Electric Mobility Plan :

Phase I: (2024-2026)- This phase will be the preparatory phase. The key focus will be on addressing the challenges & barriers to EV uptake

Key activities during this phase would include –

- Establishment of the Climate Change Unit
- Establishment of the regulatory framework
- Development of standards & protocols for charging infrastructure to ensure inter-operability
- Incorporating EVSE into Building Code Regulation
- Establishment of incentives: financial & non-financial
- Mobilization of funds to finance incentives
- Development of human capital for the electric vehicles value chain
- Building the capacity of Ghana National Fire Service to manage EV related fires
- Addressing electricity supply issues including grid stability, grid congestion pressures etc.
- Development of standards & regulations for converting internal combustion engine vehicles to electric vehicles
- Public education & awareness creation

Phase II: (2027-2035)- The principal objective of this phase is to ensure a successful take-off & successful transition to EVs in Ghana. The target is that by the end of this phase EV penetration rate will be 35%.

Principle activities during this phase would include –

- Provision of information on EVs & associated benefits
- Ensuring secure, resilient & sustainable EV supply chains
- Implementation of incentives for consumers & suppliers: low-interest loans
- Implementation of incentives for electric vehicle supply equipment (EVSE). EVSE supplies electricity to an electric vehicles. EVSE systems include electrical conductors, related equipment, software & communications protocols that deliver energy efficiently & safely to the vehicle. These are classified as Level I (120 volts AC). Level 2 (240 volts AC) & DC fast charger (480 volts DC & higher)
- Promotion of battery swapping stations
- Procurement of EVs by the government institutions: 60% of the government vehicles fleet to be EVs by 2035.

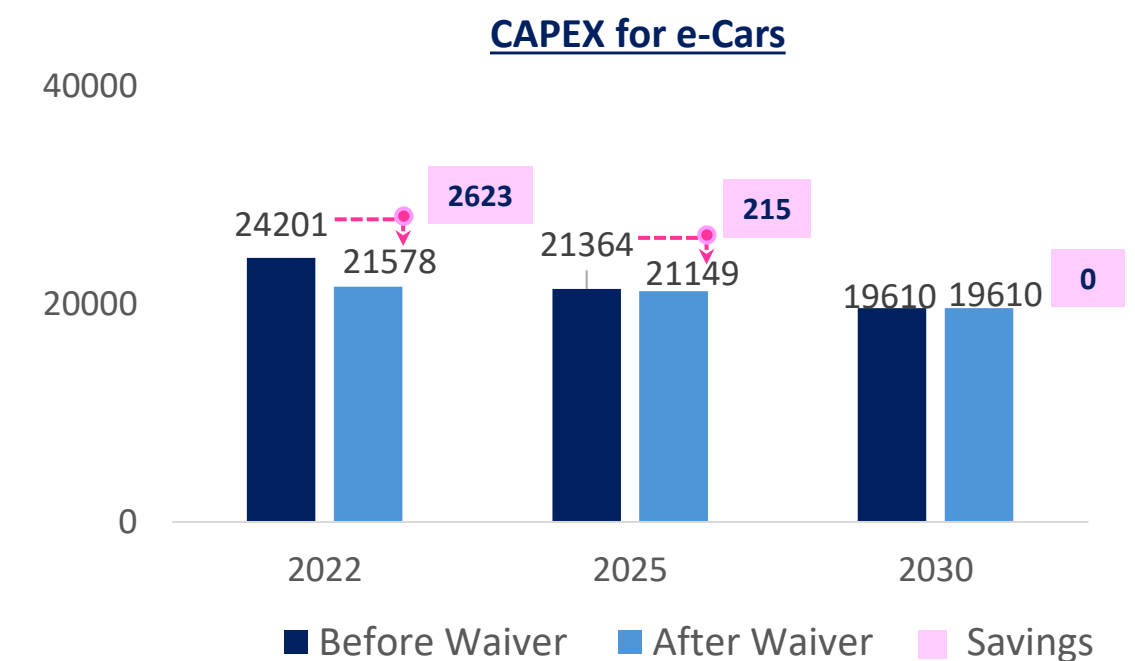
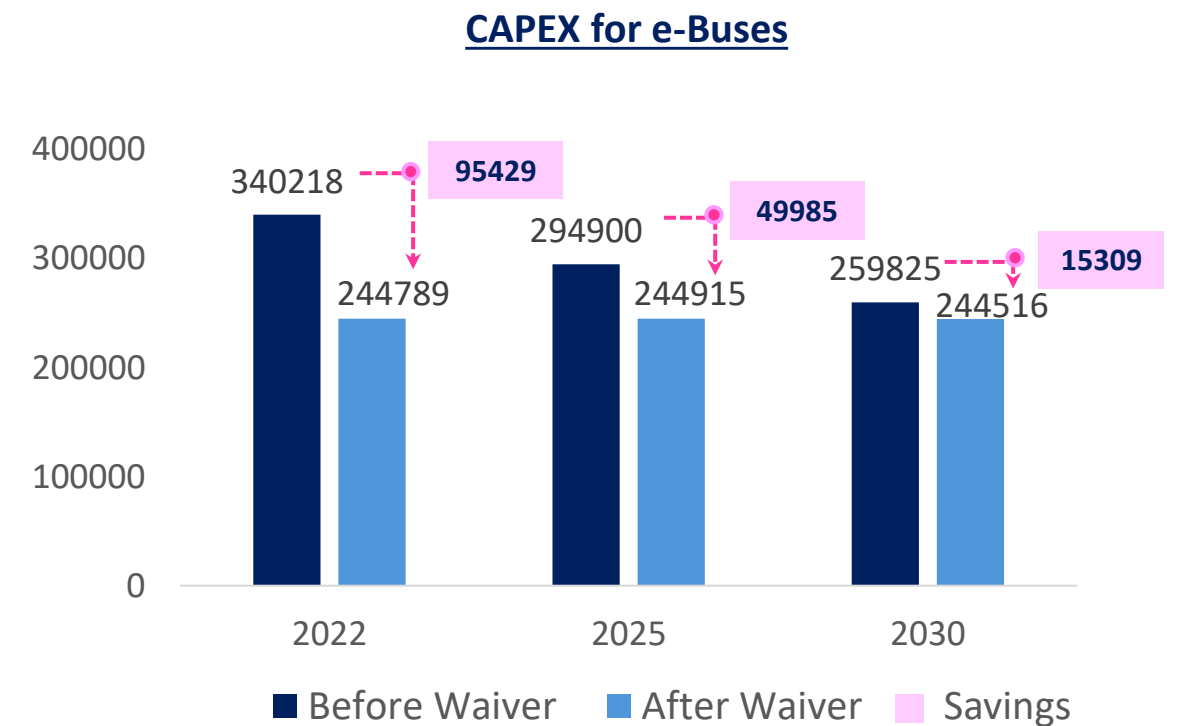
- Procurement of EVs by government institutions: 60% of government vehicles fleet to be EVs by 2035
- Procurement of EVSE by public institutions: 100% of MDAs & MMDAs have EVSE
- Ensuring charging infrastructure roll out at homes & private workplaces
- Promoting assembling of EVs in Ghana
- Supporting production of lithium-ion batteries in Ghana
- Promoting collaboration with countries in the sub-region for the adoption of EVs
- Supporting production of Lithium-ion batteries in Ghana
- Promoting collaboration with countries in the sub-region for the adoption of EVs
- Supporting electrifications of ICEs
- Encouraging public transport operators to move to EVs
- Promoting PPP investment for EV charging infrastructure
- Data analysis & research to provide relevant information to support decision-making related EV transition

Phase III: (2036-2045)- During this phase, efforts will be made to ensure that by the year 2045 no new petrol or diesel vehicles would be sold or imported into Ghana

- Gradually phase out the incentives for promoting EV uptake
- Strengthen efforts to assemble EVs in Ghana
- Consolidate Ghana's position as the hub for the supply of lithium-ion batteries
- Strengthen public education on plans to phase out the sale of ICE vehicles in Ghana
- Ensure that the government vehicle fleet will be 100% EVs by the year 2040
- Strengthen Customs Division to seal all potential loopholes for entry of ICEs into Ghana
- Continue to support the electrification of ICEs into Ghana
- Continue efforts to ensure a stable & adequate supply of electricity to support EV transition

Exhibit O2

Per Bus CAPEX (USD) Comparison for e-Buses & e-Cars in Ghana before & After Import Duty & VAT Waivers



Source: eninrac consulting, NEM Roadmap Ghana

PRIORITISED POLICY MEASURES FOR EVs PENETRATRATION IN GHANA

Policy Goal	Prioritized Policy Measures
Economic & fiscal measures	Affordable financing mechanisms, incentives and targeted subsidies
	Affordable and special electricity (energy) tariff for charging EVs
Infrastructural measures	Installation of intra-city and inter-city charging points
	Garages, maintenance workshops and training centres
	Traffic management: Contraflow bus lanes and dedicated bus lanes
Technical measures	More extended range and battery capacity
	Skills development, retrofitting of ICEVs, and low-carbon technology transfer
Institutional framework, policy and regulatory measures	Review of the Harmonized System (HS) Customs code
	Standardization, licensing and certification of EVs and related components
	Research, capacity building, assembly and manufacturing
	Energy security/ renewable EV charging and battery storage facilities, recycling and end-of-life disposal systems
Social measures	Procuring, piloting and testing EVs
	Roadmap on EV awareness creation and campaigns
Local EV development measures to accelerate the uptake of EVs	Review and adapt the Ghana Automotive Development Policy for ICEVs to provide enabling environment for local start-ups
	Establish an assembling plant and ensure local content and automotive standards are enforced in the domestic industry



About Eninrac

Eninrac Consulting is a global market research and advisory firm that specializes in providing comprehensive insights and strategic solutions across various industries. Our services are designed to help businesses navigate market complexities, identify growth opportunities, and achieve sustainable success.

Eninrac's USP lies in its ability to deliver pragmatic, data-driven solutions tailored to the unique needs of each client. By maintaining close collaboration and adopting a hands-on approach, they ensure that their insights are actionable and aligned with clients' strategic objectives. This personalized guidance through diverse markets and cultures sets them apart in the consulting landscape. By leveraging the services offered, Eninrac Consulting empowers businesses to improve processes, understand customers, and solve problems effectively, thereby driving growth and maintaining a competitive edge in their respective industries.

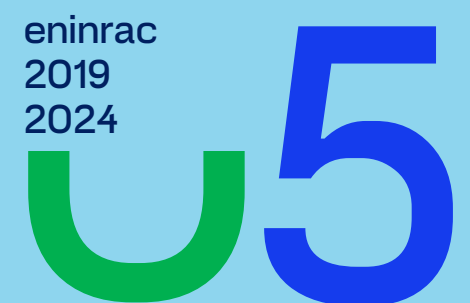
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