

TOWARDS A GREEN REPUBLIC: THE LAW, POLICY AND REGULATION GOVERNING THE USE OF ELECTRIC VEHICLES IN GHANA.



AUTHORED BY:



Eunice Adu-Bossman,
Associate Attorney -
Edfields Attorneys



Albert Ekow Quainoo,
Associate Attorney -
Edfields Attorneys



Esther Aryenor,
Associate Attorney -
Edfields Attorneys



Erasmus Elorm Agbo,
Pupil -
Edfields Attorneys

INTRODUCTION

The global transition from fossil fuel dependency to cleaner and more sustainable energy systems has accelerated significantly over the last two decades. Governments across the world continue to adopt policies aimed at reducing greenhouse gas emissions, mitigating the effects of climate change and promoting environmental sustainability.

One of the most visible manifestations of this transition is the increasing adoption of electric vehicles (EVs) as an alternative to the conventional combustion engine vehicles.

Electric Vehicles have emerged as a critical component of sustainable transportation policy due to their potential to reduce carbon emissions, improve urban air quality, and decrease dependence on petroleum products. Countries such as Norway, China, and Rwanda have adopted extensive legal and fiscal frameworks to accelerate EV penetration through tax incentives, affordable charging infrastructure, and other incentives to discourage the purchase of convention vehicles.

Ghana is gradually joining this global transition. In December 2023, the Government of Ghana unveiled Ghana's National Electric Vehicle Policy, as a watershed framework developed under the National Energy Transition Framework (2022-2070). This policy seeks to promote electric mobility, reduce emission from the transport sector and position Ghana as a participant in the merging green economy.

The transition is particularly significant because the transport sector remains

one of the largest contributors to greenhouse gas emission in Ghana. According to the Environmental Protection Agency of Ghana (EPA), vehicular emissions account for approximately 48% of the total energy emissions and 17% of the total national emissions¹. As electric vehicles become increasingly visible on our roads, important legal and regulatory questions arise regarding vehicle registration, charging infrastructure, electricity pricing, environmental protection, battery disposal, consumer protection, insurance liability, and institutional oversight.

Following the unveiling of the policy, the Government of Ghana made significant fiscal interventions viz an eight-year import duty waiver for EVs used in public transportation², VAT exemptions for locally assembled electric vehicles³, and incentives for registered EV assembly companies. As of early 2024, estimates suggest that over Seventeen Thousand (17,000) electric vehicles are in operation in Ghana⁴.

Existing laws were enacted during an era dominated by combustion engines and do not adequately address the technical, environmental and commercial realities of EVs. Despite these nascent policy interventions to accelerate the adoption of EVs in Ghana, and to contribute towards our national and international commitment towards climate change⁵, there is no comprehensive legislation to regulate and operationalise EVs in Ghana.

This article analyses the existing legal framework governing the purchase and use vehicles in Ghana and examines how these laws apply to the existing realities of the adoption of EVs. It also discusses the regulatory framework for

¹National Electric Vehicle Policy, November 2023, at p.15.

²Value Added Tax (Amendment Act),2023 (Act 1107).

³Ibid

⁴2022 Ghana Electric Vehicles Baseline Survey Report by the Energy Commission

⁵Ghana is presently a party to: The United Nations Framework Convention on Climate Change (UNFCCC), 1992; The Kyoto Protocol, 1997; The Paris Agreement, 2015; The Vienna Convention for the Protection of the Ozone Layer (1985) and the Montreal Protocol on Substances that Deplete the Ozone Layer (1987); The Glasgow Climate Pact, 2021 (COP26); Agenda 2063: The Africa We Want; and the Sustainable Development Goals (SDG) of the United Nations.

EV charging stations and battery swap systems. It concludes by recommending critical legislative reforms to ensure compliance with both national and international standards.

UNDERSTANDING ELECTRIC VEHICLES

Electric vehicles are vehicles powered wholly or partly by electricity through rechargeable battery systems or other electric propulsion technologies. Ghana's National Electric Vehicle Policy, consistent with international classification, recognises four principal categories of electric vehicles:

a. Battery Electric Vehicles (BEVs)/Pure Electric Vehicles⁶: These vehicles are powered exclusively by one or more electric motors, drawing energy from a rechargeable battery pack with no internal combustion engine. These vehicles emit zero tailpipe emissions and must be recharged from an external source.

b. Plug-in Hybrid Electric Vehicles (PHEVs)⁷: PHEVs incorporate both a combustion engine and a larger battery that can be charged externally from a charging point. PHEVs can operate in full electric mode for a limited range before the combustion engine engages

c. Fuel Cell Vehicle (FCEV)⁸: These vehicles use a propulsion system similar to that of electric vehicles, where energy stored as hydrogen is converted to electricity by the fuel cell.

d. Hybrid Electric Vehicles (HEVs)⁹: They combine a conventional internal combustion engine with an electric propulsion system. The battery in a conventional HEV is charged through regenerative braking and does not require external charging.

The distinction is necessary because the taxation, charging infrastructure requirement, environmental standards, insurance obligation and safety regulations may differ depending on the type of EV.



⁶Supra; note 1, at p.17

⁷ibid

⁸ibid

⁹ibid

LEGAL AND REGULATORY FRAMEWORK FOR THE PURCHASE AND USE OF ELECTRIC VEHICLES AND CHARGING STATIONS:

The use and purchase of EVs in Ghana, is one that invites an examination of an assemblage of legislation and other enactments. These include:

1. The Road Traffic Act, 2004 (Act 683) and Road Traffic Regulations, 2012 (L.I. 2180).

The Act is the principal legislation governing the use of motor vehicles on Ghanaian roads. Collectively, the Act and regulation establish the legal framework for road safety, driver licensing, vehicle roadworthiness, traffic offences, and other related matters.

Section 134 of Act 683 defines 'motor vehicle' as a mechanically propelled vehicle intended or adapted for use on roads. This definition is sufficiently broad to include EVs. However, the legislation does not contain EV specific provisions regarding electric propulsion systems, charging compliance or roadworthiness certification.

2. The Environmental Protection Act (EPA), 2025 (Act 1124)

This empowers the Environmental Protection Agency (EPA) to regulate and control activities that affect the environment, including emissions from motor vehicles. Whilst EVs are inherently low-emission vehicles, they are not wholly exempt from environmental regulation.

Lithium-ion battery disposal, battery recycling and electricity generation emissions create environmental risk that Act 1124 does not address. Also, the charging of EVs from a national grid

powered substantially by fossil fuels creates indirect emissions

3. The Customs Act 2015 (Act 891) as amended by Act 1014 of 2020 and The Value Added Tax, 2013 (Act 870) as amended by Act 1107 of 2023

These laws regulate the importation of goods into Ghana and is administered by the Ghana Revenue Authority (GRA) through the Integrated Customs Management System (ICUMS). As one of its policy objectives, the National EV Policy seeks to implement incentives for importers of EV into Ghana, and this is where Act 891 is crucial.

Current government incentives include

- VAT exemption for locally assembled EVs

- Import duty waivers for EVs used in public transportation.

- Incentives for EV assembly plants which import vehicle kits and assemble locally (such as tax rebates under the Ghana Automotive Manufacturing Development Programme).

These measures are intended to increase the adoption and encourage investment in local assembly. However, this incentive structure primarily benefits commercial operators and does not incentivize private ownership.

4. Ghana Standards Authority Act, 2022 (Act 1078)

This law established the Ghana Standards Authority (GSA), which plays an increasingly critical role in the EV ecosystem. The GSA has, in collaboration with the Energy Commission, developed and published GSA-approved standards for EV charging infrastructure, vehicle batteries, and related equipment¹⁰.

These standards are intended to ensure that EVs imported into or assembled in

¹⁰Regulation of Electric Vehicle (EV) Charging Station and Battery Swap System Installation in Ghana (Public Notice No. PN011112025) <<https://shorturl.at/nr5Ot>> accessed 6th May 2026



Ghana meet minimum safety and technical requirements. Once any person desires to import an EV or trade in EVs in Ghana, such person's vehicles and charging infrastructure are required to conform with the standards set out by GSA.

5. Driver and Vehicle Licensing Authority Act, 1999 (Act 569)

The Driver and Vehicle Licensing Authority (DVLA), established under Act 569 is the primary statutory body responsible for vehicle registration and driver licensing in Ghana. All motor vehicles operating on Ghanaian roads, (including electric vehicles) must be registered with the DVLA¹¹.

Regulation of Charging Stations

In a survey conducted by the United Nations Development Programme (UNDP) in 2025, it was revealed that Ghana has only seven (7) public station

for EVs, all of which are located in Accra¹², while currently, the country has over 17,000 EVs operational. This reveals a huge infrastructural gap for EVs.

The Energy Commission has asserted regulatory authority over EV charging stations and battery swap systems under the Energy Commission Act, 1997 (Act 541). The Commission has formally notified the general public that the installation and operation of electric vehicle charging stations and battery swap systems in Ghana fall squarely within its regulatory mandate under Act 541 and has issued a public directive to this effect¹³.

The Ghana Standards Authority has also developed technical standards relating to charging infrastructure and EV equipment. In exercise of its power conferred by Section 29 (1) of Act 1078, the Authority declared 47 specifications approved as National Standards¹⁴. Additionally, the Public Utilities Regula-

¹¹Act 569, s.3

¹²Augustina Tawiah 'Electric Vehicle Charging Points Sited in Accra Alone' (Graphic Online, 28th March 2025) <https://shorturl.at/IFmwwg> accessed 6th May 2026.

¹³Supra; note 9

¹⁴Notice of Declaration of Specification As Standard Specifications; (Ghana Gazette, 9TH January 2024)

tory Commission Act, 1997 (Act 538), is responsible for regulating the utilities sector in Ghana, including the pricing of electricity.

PURC introduced Ghana's first formal electricity pricing structure for commercial EV charging¹⁵. Under the new tariff regime, EV charging operators are required to pay an energy charge of GH¢2.016 per kilowatt-hour and a monthly service charge of GH¢500.00¹⁶.

REGULATORY GAPS AND REQUIRED LEGISLATIVE REFORMS

Enactment of an Electric Vehicles Regulation Act

Ghana currently lacks a dedicated statute governing electric vehicles. Existing regulation depends on fragmented statutes that are not designed specifically for electric mobility. The patchwork application of the Road Traffic Act, 2004, the Customs Act, 2015, and the Energy Commission Act, 1997 to EVs creates regulatory uncertainty and enforcement challenges with overlapping institutional mandates.

A dedicated and comprehensive Electric Vehicles Regulation Act is necessary and would provide a coherent EV-specific legal framework, consolidating provisions on registration, technical standards, safety, insurance, charging infrastructure, and battery disposal into a single instrument.

Revision of the Road Traffic Regulations

Another significant gap is the absence of roadworthiness and safety standards specifically tailored to EVs. The current Road Traffic Regulations, 2012 (L.I. 2180) were enacted primarily with conven-

tional internal combustion engine vehicles in mind and therefore do not sufficiently address the unique technical and safety issues associated with electric vehicles.

Presently, there are no detailed statutory provisions governing EV battery inspection procedures, charging port compliance standards, battery integrity testing, or the certification of technicians qualified to inspect and maintain EV systems.

The legal framework also fails to establish mandatory protocols for responding to EV battery fires, thermal runaway incidents, and electrical hazards arising from damaged battery systems following accidents. This regulatory vacuum creates substantial safety concerns for consumers, road users, insurers, mechanics, and enforcement agencies.

Regulatory reforms are therefore urgently required to introduce comprehensive EV roadworthiness certification criteria, minimum acoustic warning requirements for low-speed EV operation (to protect visually impaired pedestrians), standards for EV battery modifications, and the certification of vehicle testing stations equipped to assess EVs.

Introduction of EV-Specific Motor Insurance Guidelines

Another important regulatory gap is the absence of EV specific motor insurance guidelines. The existing motor insurance regime was developed primarily for conventional combustion engine vehicles and does not adequately address the unique risks associated with electric vehicles.

Consideration must be given to risks arising from charging station accidents,

¹⁵William Narch, 'Ghana Introduces First Commercial EV Charging' (Citi Newsroom, 13th March, 2026) <https://shorturl.at/jWzR9> accessed 7th May 2026.

¹⁶ibid

battery fires, software malfunctions, and damage caused during charging operations. Given the high value and technical complexity of EV batteries, the absence of clear insurance standards creates uncertainty for insurers, vehicle owners, repair centres, and financiers.

Clear EV specific insurance regulations would therefore enhance consumer confidence, improve industry certainty, and strengthen the overall legal framework governing electric mobility in Ghana.

Extension of Import Duty Waivers to Private EV Purchases

Currently most of the existing incentives are directed primarily at commercial operator and public transportation vehicles, leaving private consumers with limited financial motivation to transition from conventional fuel powered vehicles to EVs. Given the high upfront cost of EVs, particularly in comparison to imported second hand combustion engine vehicles, broader fiscal support is necessary to make EV ownership economically accessible to the ordinary consumer.

A Comprehensive Battery Waste Management Regulatory Framework

A critical component of Ghana's transition to electric mobility is the establishment of a comprehensive battery recycling and disposal regime capable of addressing the environmental risks associated with EV battery waste. Lithium-ion batteries contain hazardous materials such as lithium, cobalt, and manganese which may pose serious public health dangers if improperly disposed of or handled.

Despite the increasing adoption of electric vehicles in Ghana, the country currently lacks a dedicated legal framework regulating the collection, transportation, recycling, repurposing, and disposal of spent EV batteries. Ghana's current environmental and waste management legislation does not adequately address spent EV batteries.

A dedicated regulatory framework, including producer responsibility obligations on EV importers and assemblers, approved battery recycling facilities, and disposal standards aligned with international best practices, is urgently required.

CONCLUSION

Ghana stands at a defining moment in its transport and environmental history. The electric vehicle is no longer a distant aspiration or a privilege of the few; it is a present and growing reality. Their growing ubiquity and international popularity establish that Ghana's shift to electric mobility is not merely a domestic policy choice but one with an international legal obligation.

The Road Traffic Act, 2004 (Act 683) and its subsidiary legislation were conceived for a world of combustion engines. The charging infrastructure landscape, with only seven public charging stations serving a fleet of over 17,000 vehicles reflects an infrastructural and regulatory deficit that no environmental ambition can long survive. If these challenges are left unaddressed, they will progressively undermine Ghana's stated commitment to sustainable transport, clean energy, and its obligations under the Paris Agreement and the broader architecture of international climate law to which it is a party.