



Africa Renewable Energy
Manufacturing Initiative



GHANA

GREEN MANUFACTURING POLICY & INVESTMENT GUIDE

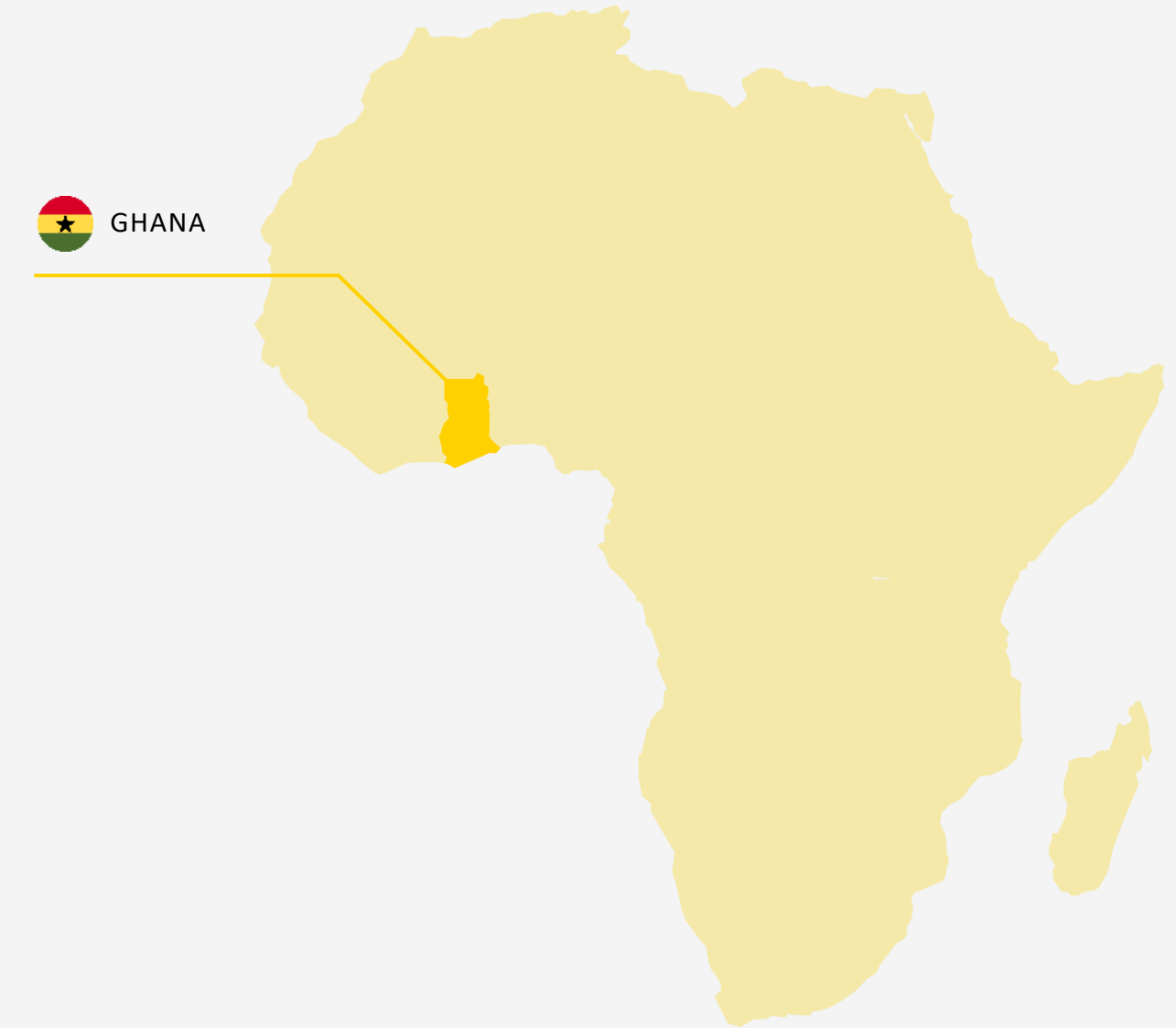
NOVEMBER 2024

CONFIDENTIAL AND PROPRIETARY
Any use of this material without specific permission is strictly prohibited

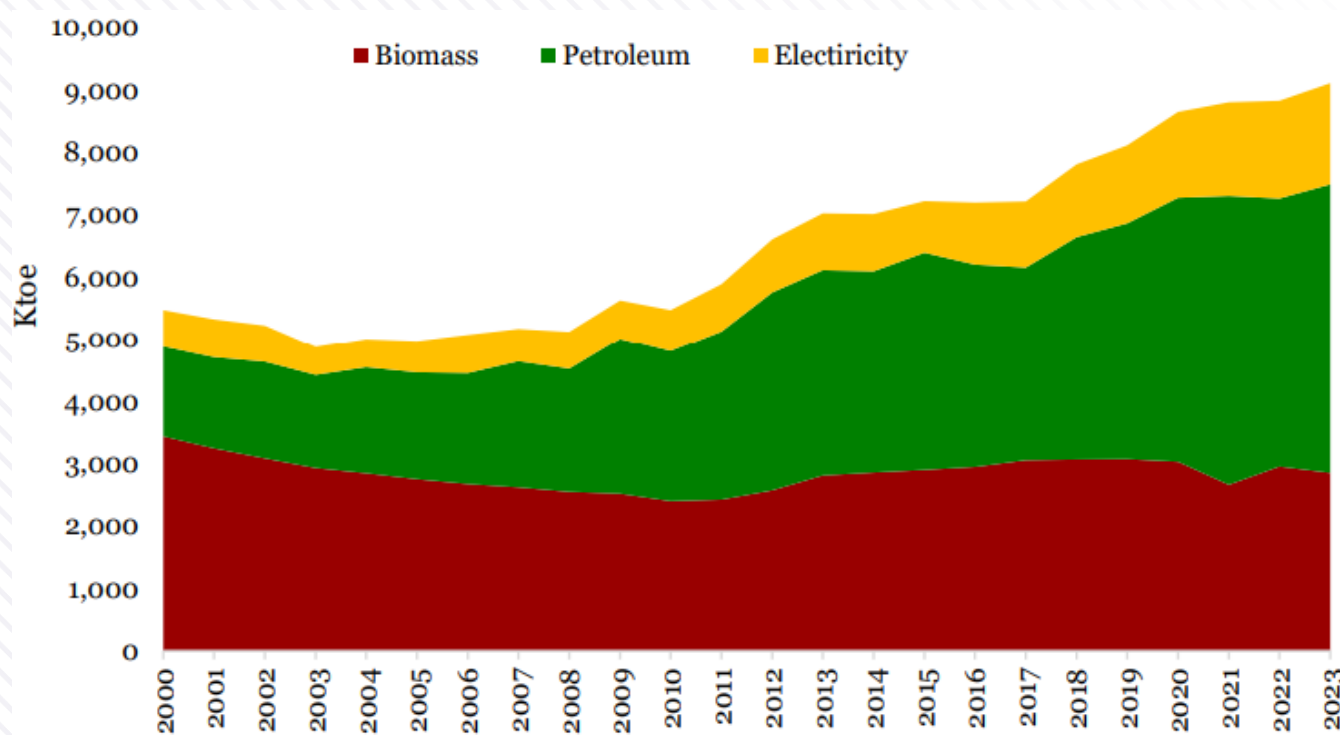


Ghana's is experiencing rapid energy consumption growth driven by rising energy access, industrialization and consumption.

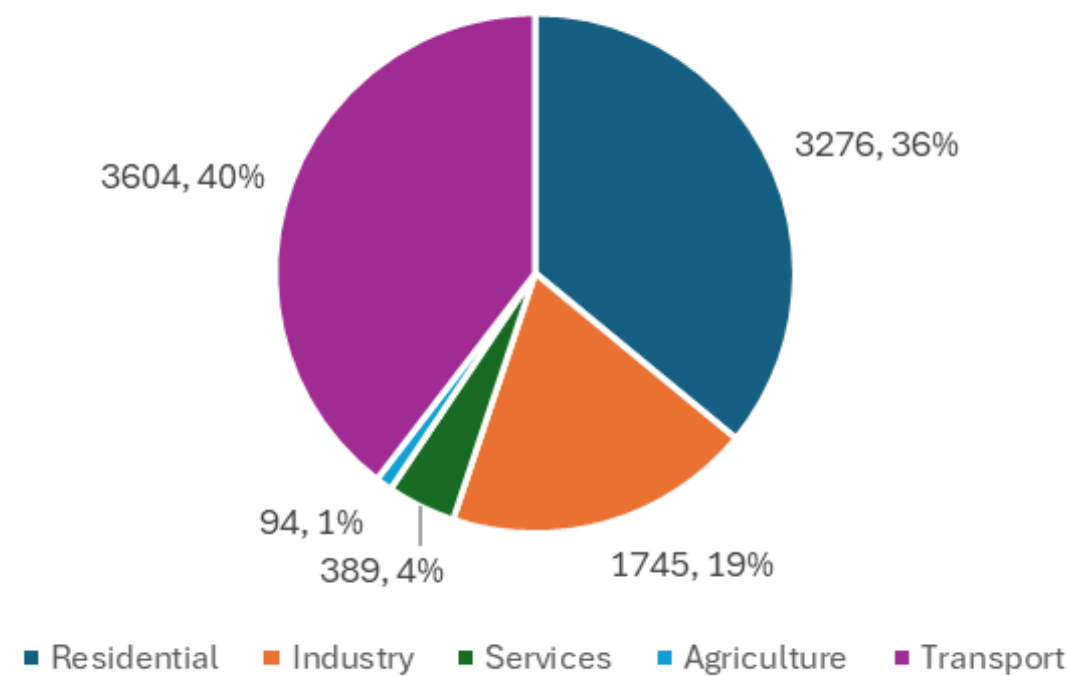
- ◆ Energy demand increasing at 10.3% per annum for the past five years
- ◆ Renewable energy installed capacity has grown from 1.6 GW in 2015 to 1.7 GW in 2022, led by hydropower and solar photovoltaic (PV).¹
- ◆ The transport sector is the largest energy consumer dependent primarily on fossil fuels. In 2021, Ghana exported 99% of its domestic oil production (in energy terms) and imported over 85% of its oil products (e.g. petrol, diesel) for end-use sector, mainly transport and manufacturing²



Total final energy consumption, by fuel



Final energy consumption, by sector (toe, %)



LOCATION
West Africa

POPULATION 2023
34 M

GDP, 2023
USD 76 B

GDP GROWTH 2023
2.9 %

[World Bank](#)

¹IRENA (2023) Renewable energy statistics 2023. Available at: <https://www.irena.org/Publications/2023/Jul/Renewable-energy-statistics-2023>

²Energy Commission (2024), 2024 National Energy Statistical Bulletin. Available at: <https://www.energycom.gov.gh/newsite/index.php/planning/energy-statistics?download=641:2024-energy-statistics>

Ghana's Energy Transition and Investment Plan (ETIP), launched in 2024, offers a pathway to achieve net zero by 2060 while meeting the country's energy needs and balancing socio-economic development objectives.

Key highlights of a net-zero aligned pathway include:



Four main decarbonization technologies anchor an orderly transition. Together, renewables, low-carbon hydrogen, battery electric vehicles and clean cookstoves cover over 90% of 2060 abatement.



Power demand grows 15x to 2060 due to robust underlying growth, and electrification of end-use sectors. New solar PV meets the majority of this increase (150 GW by 2060).



By 2050 electric vehicles dominate the fleet and fully replace fossil vehicles by 2060.~90%

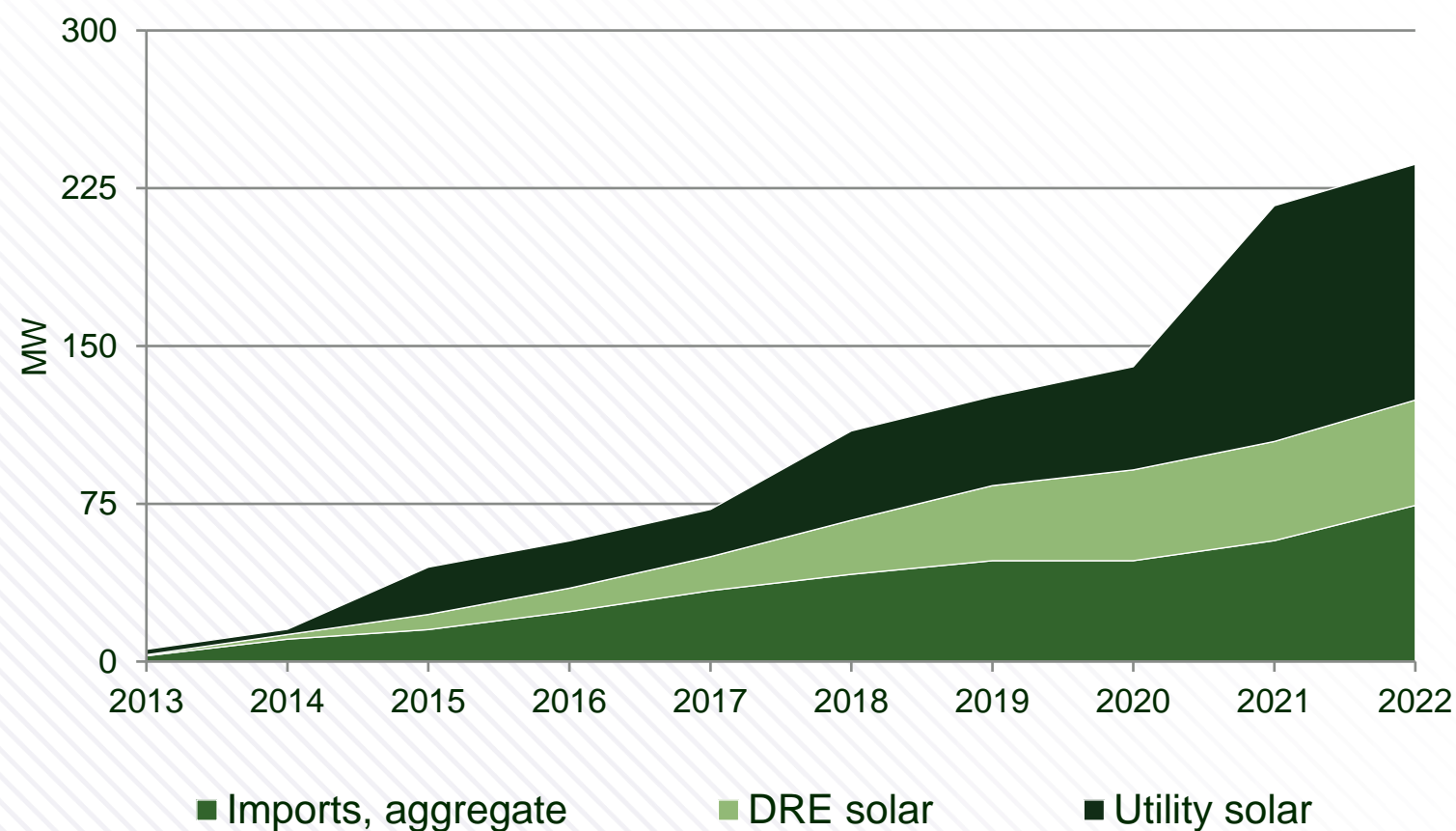


Reduction in domestic oil and gas consumption in 2060 Net Zero vs BAU.
Delivering Net Zero aligned investment could drive new economic activity in the energy sector and beyond, potentially supporting an additional 400 thousand net new jobs by 2060.



Why Renewable Energy Manufacturing in Ghana?

Local manufacturing and value chain development is a key priority for the government as well as various national plans and policies.



Growth in the deployment of energy transition solutions, including solar PV, electric vehicles and batteries, will result in rising import costs. Between 2013 and 2022, Ghana imported USD 74 million of solar modules. An additional USD 300 million is expected by 2030 if solar deployment is in line with the ETIP¹.



The Government of Ghana is laying strong emphasis on local manufacturing and value chain development to reduce import dependency and create jobs.



The 2017 Local Content Regulations (L.I. 2354) requires at least 51% local ownership in wholesale electricity supply and distribution within Ghana, with a 60% local content mandate. The Regulations also it aims to boost domestic production of electrical cables, solar cells, and related components.



The National Electric Vehicle (EV) Policy offers a blueprint for local manufacturing of electric vehicles.



Ghana has banned the export of raw lithium. The Green Minerals Policy adopted in 2023 provides the broad framework for the exploitation and management of critical minerals, including adding value to lithium before exports and forward linkages to battery manufacturing.

To aid the private sector, investors and other stakeholders in navigating the manufacturing policy and regulatory landscape in Ghana, this guide offers insights on two key areas:

- Considerations for OEMs in establishing a renewable energy (RE) manufacturing company: applicable laws, processes and institutions to engage.
- Overview of the domestic green manufacturing policy landscape: available incentives, stakeholders and governance.

This guide is not designed to be an exhaustive resource but rather offers a preliminary understanding of the sector landscape. It forms part of a series of country-specific guides for each of Africa Renewable Energy Manufacturing Initiative's (Africa REMI) focus countries.



[LEARN MORE](#)



Outline

1. Establishing a Renewable Energy Manufacturing Company in Ghana

What is an original equipment manufacturer (OEM)?

Key steps in establishing a RE manufacturing company

Options of available legal entity structures

Strategic locations for a RE manufacturing facility

Permits and approvals

Applicable IP rights

Available fiscal and tax incentives for RE manufacturers

2. Policy landscape and Incentives for RE manufacturing in Ghana

Enabling Policies and Incentives for RE Technologies

Stakeholder Landscape for RE Manufacturers

What are the key non-fiscal support measures for RE manufacturing?

List of Key Stakeholders

3. Recommendations to accelerate RE manufacturing in Ghana

Establishing a Renewable Energy Manufacturing Company in Ghana

What is an Original Equipment Manufacturer (OEM)?




An original equipment manufacturer (OEM) is a business that produces component parts or products that serve as inputs for larger products or technology solutions. In the case of renewables, solar panels, batteries and other inputs are all essential components for renewable energy solutions, such as decentralized energy systems and electric vehicles.

OEMs have a multi-fold impact on the economy and are critical for the growth. Their contributions include:

1. **Employment Generation:** Creating diverse and high-income jobs in manufacturing, engineering, and supply chain sectors.
2. **Supply Stability:** Ensuring consistent component supply, mitigating market and price volatility risks.
3. **Value Chain Enhancement:** Significantly adding to the value chain, driving innovation, and bolstering industry competitiveness.
4. **Cost-Effective Quality:** Focusing on specialized parts, they achieve economies of scale and uphold stringent quality standards.
5. **Customization and Technological Innovation:** OEMs offer bespoke solutions with advanced technology, crucial for product functionality and integrity.





Key steps in establishing a **Renewable Energy Manufacturing Company in Ghana**

- 1 Incorporate a legal entity in Ghana.
- 2 Assess availability of business districts and zones that provide incentives to manufacturers along with strong transport links.
- 3 Obtain requisite approvals and registrations for manufacturing operations with relevant regulators.
- 4 Procure registration of intellectual rights where applicable.
- 5 Apply for and obtain relevant tax and fiscal incentives.

In Ghana, the Companies Act, 2019 is the primary legislation that governs the formation and management of companies and other legal entities. Under the Act, various types of companies and legal structures can be registered and established:

1. **Company Limited by Shares:** This type of company has the liability of its members limited to the amount unpaid on the shares respectively held by them.
2. **Company Limited by Guarantee:** This type of company has the liability of its members limited to an amount that the members may respectively undertake to contribute to the assets of the company in the event of its being wound up.
3. **Unlimited Company:** This type of company does not have a limit on the liability of its members
4. **External Company:** This type of company is a body corporate formed outside the Republic which, has an established place of business in the country.



Land use and planning are governed by Land Use and Spatial Planning Act, 2016 (Act 925), Zoning and Land Use Regulations, 2019 (LI 2384), the National Building Regulations, 1996 and the Local Government Act, 2016. These legal frameworks are used to regulate and manage land use planning and are overseen by the Land Use and Spatial Planning Authority (LUSPA). LUSPA is mandated to ensure sustainable use of land and human settlement.

Ghana's land use and planning framework is governed by ACT 925. Which outlines overarching regulations. The Zoning and Land Use Regulations (L1 2384) provides guidelines for creating and implementing zoning maps. The Land Act 2020 (Act 1036) categorizes land into public and private ownership. Public land, owned by the state, is used for public facilities like schools and hospitals. Private land, belonging to individuals or entities, can be utilized for residential, commercial, or industrial purposes. These distinctions are fundamental to industrial development.

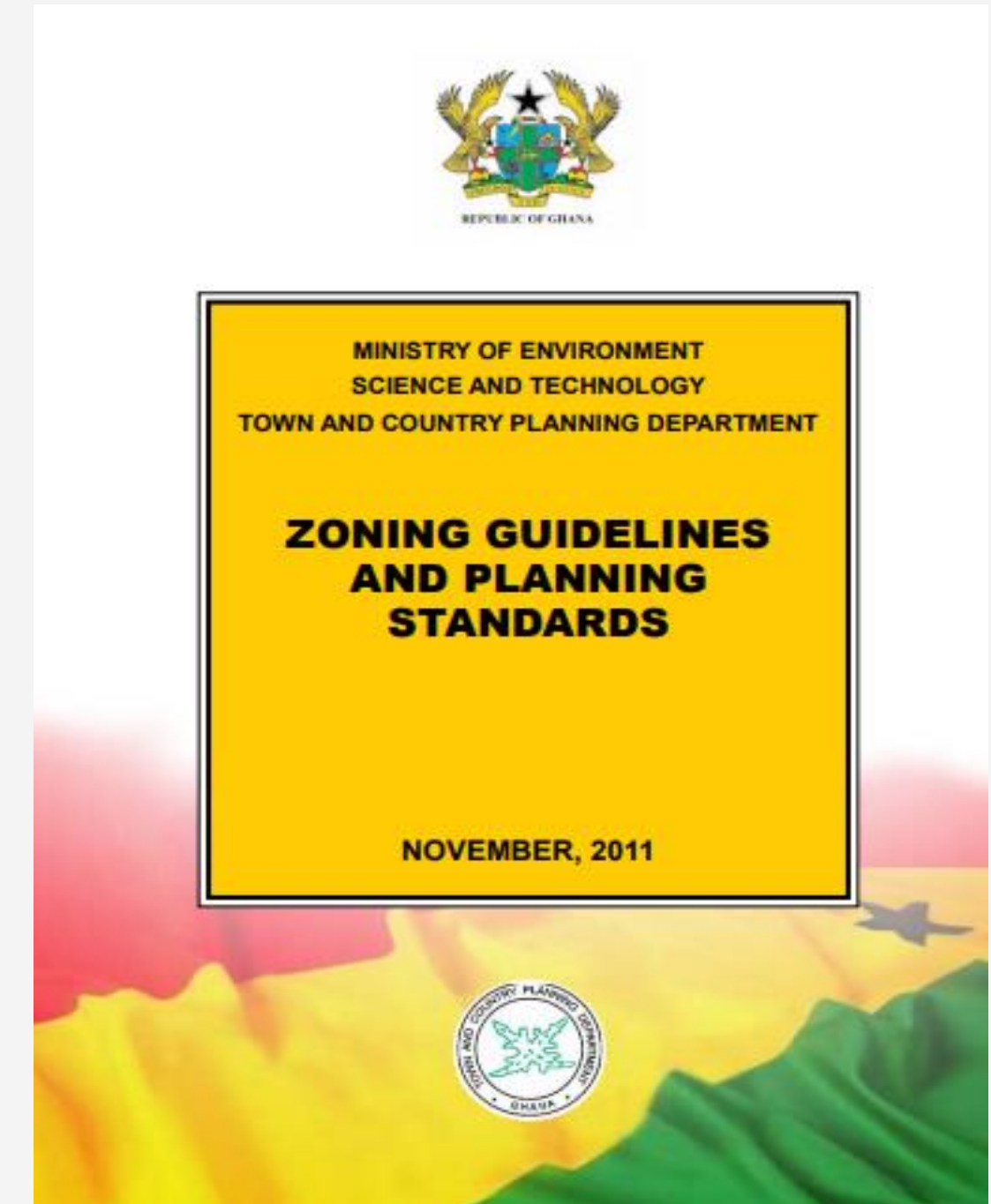
These legal provisions manage land ownership, stipulate zoning regulations, oversee building permits, and mandate environmental assessments. The overarching objective of these laws is to guarantee safe, sustainable, and eco-conscious development throughout Ghana.

Zoning

The Town and Country Planning Department (TCPD) under the Ministry of Environment, Science, Technology and Innovation oversees zoning and land use planning in Ghana. Local planning departments use zoning to define permissible land uses and development patterns for individual land parcels.

Zoning and Land Use Regulations, 2019 (L.I. 2384): This regulation offers detailed guidelines for preparing and implementing zoning plans, including industrial zones.

Ghana's land use and planning laws are critical to ensuring that development projects are carried out sustainably and responsibly that benefit both people and the environment. By understanding the various zoning regulations, building permit requirements, and environmental laws that apply to their projects, developers, and planners can help to ensure that their work aligns with the broader goals of sustainable development and environmental protection.



[VIEW ONLINE](#)

Industrial Zones are designated for industrial activities including manufacturing, warehousing, and other industrial processes.

Dawa Industrial Zone

Dawa Industrial Zone is a purpose-built industrial area designed to accommodate a wide range of light and heavy industries. Spanning 2000 acres of industrial land, the Zone offers essential infrastructure such as power plants, water supply, and high-speed internet connectivity to support business growth. The zone seeks to attract metal fabrication, steel, cement manufacturing, autos assembly, textile, data centres, pharmaceutical manufacturers, and agricultural processing. Companies operating within the zone enjoy tax holidays and waivers on import duties if they export their products.

Tema Industrial Zone

It is a significant industrial hub located in Tema, Ghana. The zone hosts a variety of industries including manufacturing, processing, and assembly. provides essential infrastructure such as roads, power supply, and water facilities.

Takoradi Industrial Zone

The Takoradi Industrial Area serves as a base for oil and gas service companies, alongside various processing and manufacturing industries. The Zone has been designated as a special oil and gas industrial free zone and oilfields services hub.

North Industrial Area

Located in Accra, North Industrial Area hosts a wide array of industries, including manufacturing, processing, distribution, logistics, automotives, and pharmaceuticals. It also supports various commercial activities, such as wholesale and retail businesses.

Kumasi Industrial Area

The Greater Kumasi Industrial City will focus on several key sectors such as light and heavy industrial manufacturing, cocoa processing, warehousing, logistics, technology and innovation.

Suame Industrial Area

Suame Industrial Area, also known as Suame Magazine, renowned for its extensive network of workshops and artisans specializing in metal engineering and vehicle repairs.

A Free Trade Zone (“FTZ”) is a designated economic zone where approved goods and services can be provided without being subjected to the usual customs, tax, labour and other bureaucratic regulations that would otherwise apply outside the FTZ.

The Ghana Free Zone Act, Act 504 of 1995 provides the legal and institutional basis for enclave development in Ghana and established the Ghana Free Zone Authority (GFZA). In Ghana, the GFZA allows the setting up of a free zone anywhere in the country. Therefore, Special Economic Zone (SEZ) firms operate in SEZ enclaves which are industrial parks (declared as SEZ) or as single-factory firms outside of such enclaves. Ghana has around four SEZ enclaves.

The SEZ firms in Ghana benefit from various incentives, including exemption from the payment of income tax on profit for the first ten years from the date of commencement of operation, exemption from payment of import customs duty, and guarantee against nationalisation and expropriation, among others.



Established by an Act of Parliament, The Free Zone Act, 1995 (Act 504), the Ghana Free Zone Authority (GFZA) is focused on establishing free zones in Ghana to promote economic development.

The GFZA provides a “one stop approval service” to investors to assist them in completing formalities for the establishment of free zone projects.

To secure an enterprise license, including for manufacturing, the following requirements need to be met:

- ✓ Company or partnership incorporation in Ghana
- ✓ Evidence of possession or lease of real property or intent to acquire such property
- ✓ GFZA License form on which GFZA shall notify the investor within 28 working days
- ✓ An Enterprise License specifying authorized activity to be undertaken by the applicant shall commence activities within 6 months of approval
- ✓ Free Zone Developers and Enterprises must comply with health, safety and environmental requirements of Ghana as per Factory, Offices and Shops Act (1970) and procedures and requirements of Environmental Protection Agency.
- ✓ The GFZA shall register free zone developers and enterprises with Factory Inspectorate Department, Environmental Protection Agency, Town and Country Planning, Metropolitan & District Assemblies.

Provisions to be eligible under Free Trade Zones Scheme

- ✓ Companies registered under the GFZA are taxed at a rate of 1% for the first ten years, and 15% thereafter.
- ✓ 100% exemption from payment of direct and indirect duties and levies on all imports for production and exports from free zones
- ✓ 100% exemption from payment of income tax on profits for Ten years which will not exceed 15% after that.
- ✓ Total exemption from payment of withholding taxes from dividends arising out of free zone investments
- ✓ No import licensing requirements
- ✓ 100% ownership of shares by any investor – foreign or national – in a free zone enterprise is allowed
- ✓ Free Zone investments are also guaranteed against nationalization and expropriation.

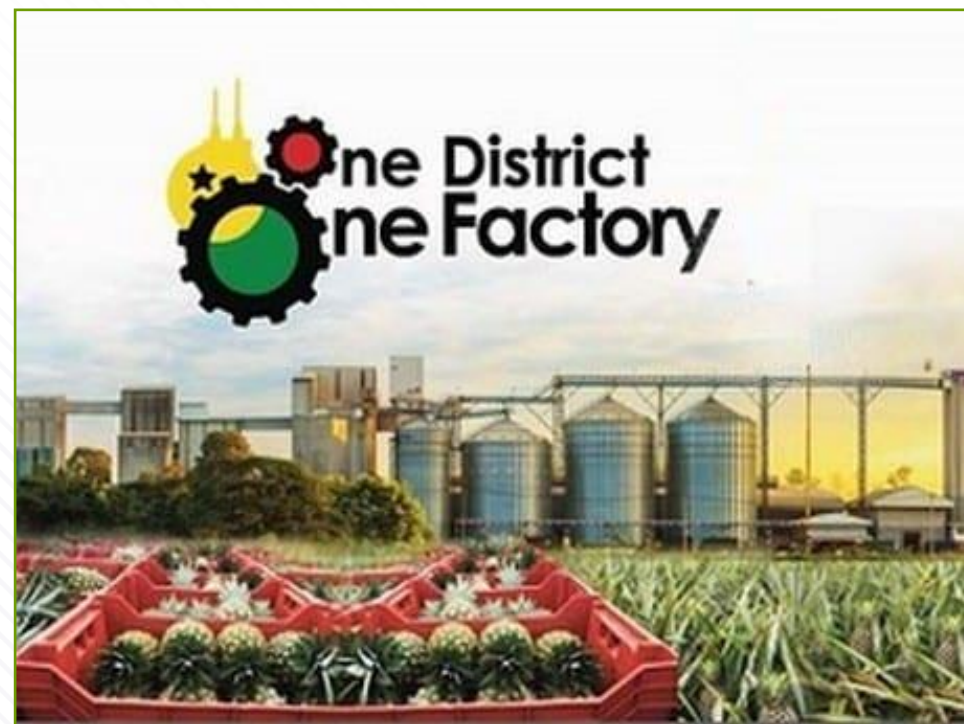
Conditions for License Eligibility to **Operate in a Free Zone**

- ✓ Should be a limited liability company registered with the Registrar Generals' Department
- ✓ Should be export-oriented and required to export at least seventy percent of its annual production.
- ✓ Should enhance the value of products or services intended for export, thereby increasing their competitiveness.

One District One Factory (1D1F) Initiative launched to support the establishment of at least one industrial enterprise in each of the 260 Districts in Ghana.

Priority sectors: Agricultural processing, Garments and textiles, Pharmaceuticals, Components manufacturing, Paper and paper products, and Packaging materials.

The 1D1F Initiative has spurred the development of 321 projects, including setting up of 211 new medium- to large-scale factories and support for 110 factories to scale up production.



Incentives

- ◆ Waiver on duties and levies for imported plant, machinery, equipment, as well as raw materials.
- ◆ Five-year corporate tax holiday.
- ◆ Interest subsidy on loans granted to 1D1F companies.
- ◆ Technical assistance provided to 1D1F companies by experienced consultants free of charge.
- ◆ Extension of needed infrastructure such as electricity, water, and access roads to 1D1F project sites.
- ◆ Government procurement of goods produced by 1D1F companies.
- ◆ Assistance with identifying export markets.
- ◆ Community support through the district implementation support teams.
- ◆ 67 business resource centers established to provide business development service support to 1d1f and other companies.
- ◆ 31 technology centers being established to provide technical support and technology solutions to 1d1f companies.

Key permits required to set up a manufacturing facility

The [Department of Factories Inspectorate](#) issues yearly certificates on health and safety at the workplace. Prior to commencing factory operations, individuals and entities must register the premises.

The [Ghana Standards Authority](#) provides product certification to ensure that goods meet quality standards. Businesses that successfully demonstrate compliance receive certification and the right to display the Standard Mark.

Business registration certificate issued by the [Registrar General's Department](#) to certify legal existence of companies within the country.

The [Environmental Protection Agency](#) mandates environmental permits for most manufacturing plants.

The construction permit authorizes the commencement and building of the power plants and its supporting infrastructure.

All construction projects require a Building Permit issued by the local government. This permit guarantees public safety by enforcing building standards, zoning regulations, and environmental protections through the approval of construction plans.

A Waste Management Permit from the local Environmental Health Department is essential for the safe management of hazardous waste.

The [Water Resources Commission](#) issues Discharge Permits to facilities that discharge wastewater. These permits enforce water quality standards to protect water bodies.

Ghana mandates vehicle certification for locally assembled cars. To certify that vehicles meet national quality and safety standards, manufacturers must secure a permit from an authorized Vehicle Certification Agency.

Environmental Permits

The permits are categorized into:

- 1 Drainage and Flood Management
- 2 Waste Handling and Management Measures;
- 3 Discharge Permit
- 4 Noise and vibration control
- 5 Dust and emission control measures

For more information on environmental permits in Ghana visit the [Environmental Protection Agency](#) website.

Environmental Impact Regulations

Ghana mandates an Environmental Impact Assessment (EIA) for all significant development projects before granting approval. The EIA evaluates potential environmental consequences and prescribes mitigation strategies.

The Environmental Assessment Regulations of 1999 outline the specific requirements for conducting Environmental Impact Assessments (EIAs) on designated development projects before granting approval.

Major development projects such as large-scale construction, mining, and industrial operations require an EIA under the Environmental Assessment Regulations due to their potential significant environmental impacts.



The National Intellectual Property Policy and Strategy was launched in 2016 with the goal of improving IP protection and promoting innovation.

The Registrar-General's Department, through its Ghana Industrial Property Office (GHIPO), manages the registration of patents, trademarks, and industrial designs in the country.



Patents: The Patent Act, 2003 (Act 657) safeguards inventions and technological advancements. Patents are valid for 20 years from the day of filing the application. A patent application is submitted to the Registrar at the Intellectual Properties Office and must contain a formal request, a detailed technical description, specific claims defining the invention, supporting visual representations where applicable, and a brief overview.



Trademarks: The Trademarks Act, 2004 (Act 664) protects brand identities, logos, and distinguishes the goods and services of different undertakings. A trademark application is made through the Trademark Registry at Intellectual Properties Office. A trademark is valid for 10 years and can be renewed for another 10 years.



Copyright: The Copyright Act, 2005 (Act 690) protects original works to enable creators receive financial reward and recognition for their efforts. In Ghana, copyrights are administered by the Ghana Copyright Office.



Industrial Designs: The Industrial Designs Act, 2003 (Act 660) safeguards the unique aesthetic design features of industrial products.



Protection Against Unfair Competition: The Protection Against Unfair Competition Act, 2000 (Act 589) seeks to protect businesses and consumers against unfair business practices. **Trade secrets** are obtained under this Act. A trade secret is valuable business information that companies actively protect.

Manufacturing Companies

Ghana imposes a standard corporate income tax of 25%. However, the [Ghana Revenue Authority](#) offers preferential rates for manufacturing companies. Businesses located outside regional capitals benefit from a 12.5% tax rate, while those in regional capitals (except Accra and Tema) qualify for a 18.75% rate. A 35% rate applies to mining companies. Manufacturing companies in free zones enjoy [a 100% waiver on all direct and indirect customs duties and levies](#) for imported goods used in production and subsequent exports. They are also exempt from corporate income tax for the first ten years, after which a maximum tax rate of 8% applies

One District One Factory (1D1F)

The [One District, One Factory \(1D1F\)](#) initiative is the government's strategy to transform Ghana into an industrialized nation. Led by the [Ministry of Trade and Industry](#), in partnership with other government agencies and local authorities, 1D1F offers comprehensive support to participating companies. Key benefits include:

- Tax incentives, such as import duty exemptions on machinery and raw materials, and a five-year corporate tax holiday.
- Financial support through interest subsidies on loans.
- Business development services from 67 business resource centers.
- Technical assistance and support from 31 technology solution centers.
- Infrastructure development, including electricity, water, and road access.
- Government procurement opportunities.
- Export market identification and support.
- Community engagement through district implementation teams.

Export of non-traditional goods

Income generated from exporting non-traditional products is subject to a preferential corporate income tax rate of 8%.

Automobile Industry

To accelerate the growth of the electric vehicle industry, the government is introducing several tax incentives:

- Import Duties: an eight-year waiver on import duties for fully electric vehicles.
- Corporate Income Tax: three-year tax exemption for assemblers of semi-knocked-down electric vehicles and a ten-year exemption for those assembling complete-knocked-down vehicles.
- VAT Exemptions: zero-rated VAT on locally assembled electric vehicles for an additional two years, and full exemption on import VAT for plant, machinery, and components used in electric vehicle production.

Exemption from customs import duties for plant, machinery, equipment, and parts

Import duties on plant, machinery, equipment, and parts are generally waived for businesses registered with the Ghana Investment Promotion Centre (GIPC). Companies whose imports do not qualify for this exemption can apply to the GIPC for potential relief.

The Ghana Investment Promotion Centre (GIPC) is the primary agency responsible for attracting and promoting investment in Ghana under the Office of the President. Enshrined by the GIPC Act 2013 (Act 865), the Centre's mandate is to encourage and facilitate valuable investments that drive economic growth, unlock opportunities, and create employment.

In accordance with the GIPC Act, 2013 (Act 865) An enterprise in which foreign ownership is permitted must after its incorporation or registration and before commencement of operations be registered with the Centre. Similarly, an enterprise which is wholly owned by a Ghanaian may after being incorporated or registered, be registered with the Centre.



GIPC promotes investments by:




- ◆ Providing guidance on the process of setting up a manufacturing plant.
- ◆ Providing incentives to investors in the manufacturing sector (e.g., tax breaks, access to land, and preferential access to government contracts).
- ◆ Facilitating access to finance for manufacturing businesses.
- ◆ Facilitating skills development within the manufacturing sector.

Policy Landscape and Incentives for RE Manufacturing in Ghana

Numerous studies have shown that the deployment of renewable energy technologies is the least-cost pathway to electrifying millions of Ghanian that are currently unserved and underserved. The country is committed to the rapid electrification of its unconnected populace as well as transitioning towards clean energy systems to support economic growth and development. The country is also keen to realize the catalytic opportunities in the energy transition and aims to do so by playing a key role in the RE manufacturing value chain. Nigeria is receptive to the growth of green manufacturing businesses and sustainable energy, as can be seen from various policy implementation and announcements.

This guide will highlight enabling policies and incentives that support the deployment of specific RE technologies across Ghana.

These include the following:

-  Solar photovoltaic modules and associated assembly components
-  Batteries
-  Components or assembly of electric vehicles



While there is not a specific, standalone solar panel manufacturing policy in place yet, the country's broader energy and industrial policies are creating a conducive environment for this sector. Import duty is not levied on solar panels unless they are part of a container, or pre-assembled generating unit, like a solar home system, which is subject to a 5% duty. A standard VAT of 15% applies.



Pre-assembled solar panels



Unassembled solar panels

The Local Content Regulations (L.I. 2354) seeks to develop local manufacturing of electrical cables, solar cells, and related components.



To qualify for the import duty exemption certificate, the company must present:

- Proof of business registration: certificate of incorporation or business registration.
- Import documentation: the bill of lading, airway bill, or shipping manifest, clearly specifying the imported solar panels.
- Product specifications: detailed information about the solar panels, including technical specifications and certifications.
- End-use declaration: a statement confirming that the solar panels will be used for renewable energy generation within Ghana.
- Additional documentation: depending on specific requirements, other documents might be needed, such as permits or licenses from relevant authorities.

Manufacturing Policy Landscape: Critical Minerals and Batteries



In July 2023, Cabinet approved the Green Minerals Policy to include robust and progressive regimes that would enable the country to reap optimum benefits from lithium and other green minerals.

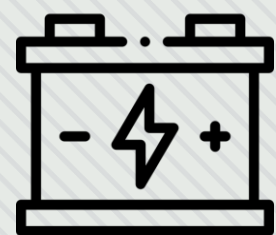
The Green Minerals Policy is specifically targeted at adding value to lithium before exporting it. The new policy is expected to lead to legislative interventions by Parliament, including an amendment to the Minerals and Mining Act, 2006 (“Act 703”). Local participation requirement in the green minerals value chain is also expected to increase in contrast to the 10% vested interest the state currently has in mining entities.

Ghana’s sovereign fund, The Minerals Income Investment Fund (MIIF) intends to leverage the automotive policy and the lithium reserves to support the development of a domestic battery and electric vehicle ecosystem.



The first African commercial-scale lithium refining facility in Ghana will be built and operated by ReElement Africa with initial refining capacity of 30,000 metric tons of battery-cell-grade lithium carbonate per year.

Source: [ReElement Technologies](#)



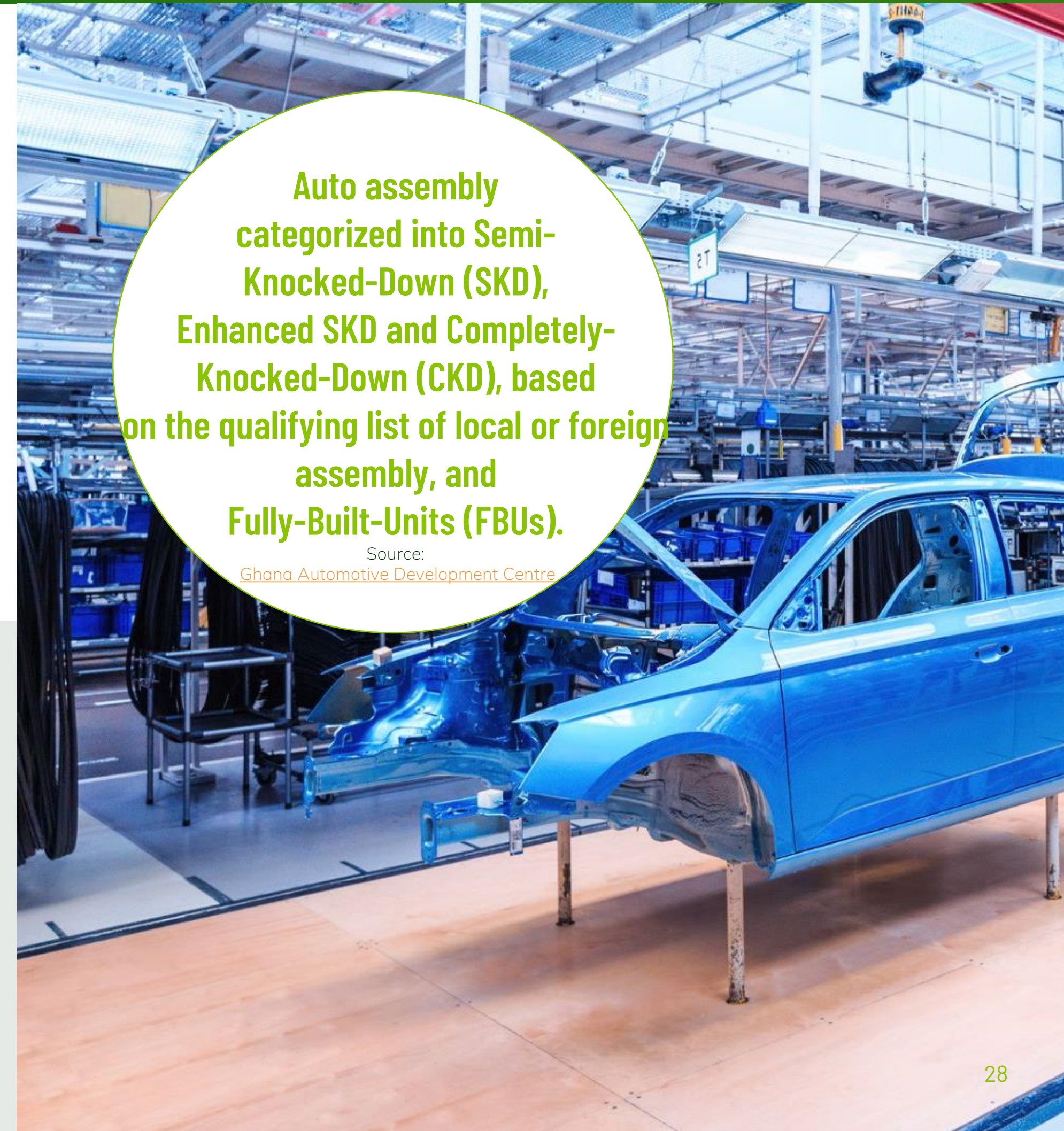
While Ghana is not currently a major hub for lithium-ion battery manufacturing and recycling, there is significant potential and growing interest in this sector. Batteries incur an import duty of 20% and a standard VAT of 15%.

The Ghana Electric Vehicle (EV) Policy was launched in 2023 to promote uptake of electric vehicles in the country to decarbonize the transport sector in line with Ghana's energy transition plans.

- Fiscal Incentives on new vehicles for Registered Assemblers in the GADP
 - Corporate Tax Holidays
 - Import Duties and Levies
 - Value-based Duty Rebate Scheme for Imported FBUs
- Market development and trade facilitation
- Environment, standards and safety
- Access to industrial infrastructure
- Participation in The Auto Programme.

2024 Budget Statement & Economic Policy – Incentives for Electric Vehicles

- Import duty waiver on semi- and completely knocked down EVs imported by registered assembly companies for 8 yrs
- Import duty waiver on import of electric vehicles for public transportation for 8 years
- Extend zero rate of VAT on locally assembled vehicles for 2 years



Auto assembly categorized into Semi-Knocked-Down (SKD), Enhanced SKD and Completely-Knocked-Down (CKD), based on the qualifying list of local or foreign assembly, and Fully-Built-Units (FBUs).

Source:
[Ghana Automotive Development Centre](#)

PRE-PLANNING

<p>Ministry of Environment, Science, Technology, and Innovation supports development for economic growth through advanced and a well-structured economy</p>	<p>Environmental Protection Agency enforces policies, guidelines, standards and regulations on environmental issues. It oversees the implementation of the National Environment Policy</p>
---	--

IMPORT, MANUFACTURING & ASSEMBLY

<p>Commercial banks remit payments to OEMs, review pre-importation documents, pay duties to GRA</p>	<p>Ghana Investment Promotion Centre attracts and promotes investment in Ghana.</p>
<p>Industrial Property Office under the Registrar General's Department registers trademarks, patents and designs</p>	<p>Customs Division of the GRA collects and accounts for revenue, import and excise duties</p>
<p>The Ghana Shippers Authority institutes efficient economic regulatory system in the import sector</p>	<p>Ghana Standards Authority tests and investigates the quality of facilities, materials and product.</p>

EXPORT, RETAIL, INSTALLATION & USE

<p>Ghana Energy Commission is a regulatory body that manages the development and utilization of energy resources.</p>	<p>Volta River Authority is responsible for power generation and transmission.</p>
<p>The Ministry of Energy formulates and implements energy policy and monitoring</p>	<p>The Ministry of Lands and Natural Resources is responsible for the sustainable management and utilization of lands and mineral resources.</p>
<p>The Ministry of Trade and Industry is the lead policy advisor to the government on trade, industrial and private sector development.</p>	<p>Ghana Export Promotion Authority supports the promotion and development of non-traditional exports from Ghana</p>

Ghana Investment Promotion Centre encourages, promotes and facilitates investments in all sectors of the economy, except mining and petroleum which are handled by the Ghana Chamber of Mines and the Ghana National Petroleum Corporation.

Ghana Revenue Authority (GRA) assesses, collects and accounts for tax and other revenues accruing to the Ghanaian Government.

List of Key Stakeholders



Lead policy advisor to government on trade, industrial and private sector development.



Enshrined by the GIPC Act 2013, primary agency for attracting and promoting investment in Ghana under the Office of the President.



Responsible for the maintenance of standards for product and services and sound management practices in industries.



AGI is a not-for profit business organisation recognised as the leading voice of the private sector in Ghana.



Initiative launched to support the establishment of at least one industrial enterprise in each of the 260 Districts.



Responsible for the facilitation, development and promotion of Ghanaian exports.



GFZA offers incentives to investors interested in developing and operating free zone enclaves and single-factory free zones in Ghana.



Recommendations to accelerate RE manufacturing in Ghana

SEforALL and the Ghana Investment Promotion Centre organized a roundtable on 'Catalyzing Renewable Energy Manufacturing in Ghana' on 20 November 2024.



The roundtable convened stakeholders from Ghana's renewable energy manufacturing ecosystem, including government, private sector, industry associations, financiers, and development partners.

The main objectives of the roundtable were:

- ◆ Showcase findings and insights from Africa REMI engagement in Ghana with stakeholders on expanding domestic manufacturing of solar PV, battery storage and electric mobility.
- ◆ Identify priority strategies and measures needed to address existing challenges across policy, investments and skills gaps.
- ◆ Develop an action agenda to scale investments in renewable energy manufacturing through partnerships facilitated by SEforALL's Africa Renewable Energy Manufacturing Initiative.
- ◆ Leverage the Roundtable to Inform the Ghana Manufacturing Policy and Investment Guide.

CHALLENGES

Off-take demand at scale is limited that allows economies of scale and contributes to competitiveness vis-à-vis imports.

Underutilisation of Ghana's industrial capacity and the lack of integration between existing industries and the renewable energy manufacturing sector.

Complex and restrictive incentive schemes, such as those limited to specific vehicle types or foreign OEM partnerships, which hinder the growth of local industries and limit the ability of local OEMs to benefit from government support.

While government regulations on local content require developers to source components from local suppliers, the industry faces practical challenges, including unfavorable payment and delivery terms, limited capacity among local enterprises, and pricing issues.

SOLUTIONS

- Scale-up targets and demand-side incentives for the adoption of renewable energy and electric mobility solutions. Latent demand can be unlocked by targeting incentives towards end-users, particularly for e-mobility and distributed renewable energy solutions.
- Integrate local content regulations and procurement aggregation mechanisms more strongly in utility-scale and distributed programmes involving public financing.
- Strengthen market signals with a roadmap of deployment target and public procurement backed by regulations (e.g. minerals export ban).

- Undertake a comprehensive assessment on Ghana's comparative advantages across energy transition value chains and identify synergies with existing industries (e.g. glass, aluminium, cables).

- Undertake a comprehensive review of existing incentive landscape for electric vehicles, in consultation with industry stakeholders, with a view to make them more accessible for local enterprises and OEMs.

- Present local content regulations should align with local firm-level capabilities to meet the demand of the sector on favourable terms. Structured capacity building and financing support needs to be defined and rolled-out to firms capable of contributing to developers' local content requirements.

CHALLENGES

SOLUTIONS

FINANCE

Lack of access to affordable and long-term financing for enterprises at different growth stages, further exacerbated by broader macro-challenges.

- Identify renewable energy manufacturing as a strategic priority sector for lending enabling local commercial banks to offer concessional capital through dedicated funding lines. Explore potential partnerships (e.g. between GIRSA and the Development Bank of Ghana to offer credit guarantees, technical and advisory services to facilitate lending to agribusinesses).
- Enhance access to grants and alternate forms of financing, including climate finance, to bridge the gap.

CAPACITY

Limited end-user financing to unlock market demand for renewable energy and electric mobility solutions.

- Develop and implement innovative demand-side financing mechanisms, such as affordable consumer loans, leasing models, and subsidies.
- Deploy concessional and philanthropic capital as a catalyst to unlock local financing.

BUILDING

Limited access to tools and technical and non-technical training resources for enterprises.

- Develop a state-of-the-art training programme and facility in partnership with local institutions (e.g. GCIC) focused on renewable energy and electric mobility enterprises.
- Develop specialized tools to enable enterprises access financing more effectively (e.g. impact assessment, climate impact).
- Facilitate peer-to-peer exchange and knowledge transfer to reduce dependency on external contractors.

Lack of harmonization in curricula and training certifications for renewable energy skills.

- Assessment of existing curricula in public and private training institutions focused on renewable energy skills and ensuring harmonization and recognition by public authorities, including the Energy Commission.

CHALLENGES

REGIONAL
APPROACH

Low demand and economies of scale in renewable energy value chain development, which hinder the growth and competitiveness of local industries. This challenge is compounded by fragmented markets, inadequate coordination between countries, and underutilized industrial bases and mineral resources.

SOLUTIONS

- Advance a regional approach and facilitate engagement with AfCFTA and ECOWAS to explore the potential of a regional strategy and assess whether existing protocols can support stronger cooperation for value chain development and what levers of actions are necessary (e.g. harmonizing regional standards).

This Guide has been produced by Sustainable Energy for All with the financial support from Bloomberg Philanthropies.

We extend our gratitude to the Ghana Investment Promotion Centre (GIPC) for co-hosting the Catalyzing Renewable Energy Manufacturing in Ghana Roundtable on 20 November 2025. We also thank all participants for their valuable insights, which contributed to curating this guide: The Ministry of Energy of Ghana, the Ministry of Transport of Ghana, AHK Ghana, AfricanEV, Cubica Energy, Dutch and Company Limited, Fidelity Bank, GIZ, Ghana Climate Innovation Centre (GCIC), Ghana Technical and Vocational Education and Training Service, Green Solar Academy, Helios Solar, JET-P Secretariat, Kantanka Group, Kofa, Renewable Energy Association of Ghana (REAG), Smart Transyt, SolarTaxi, Strategic Power Solutions, Ten Forward International (TFI), The Brew Hammond Energy Centre at Kwame Nkrumah University of Science and Technology (KNUST), UNOPS, UNRC, Wahu, and iJANU.





**Africa Renewable Energy
Manufacturing Initiative**

ABOUT SEforALL

Sustainable Energy for All (SEforALL) is an independent international organization that works in partnership with the United Nations and leaders in government, the private sector, financial institutions, civil society and philanthropies to drive faster action on Sustainable Development Goal 7 (SDG7) – access to affordable, reliable, sustainable and modern energy for all by 2030 – in line with the Paris Agreement on climate change.

SEforALL works to ensure a clean energy transition that leaves no one behind and brings new opportunities for everyone to fulfil their potential. Learn more about our work at www.SEforALL.org.



ANNEX

Ghana's Factories, Offices and Shops Act of 1970 (Act 328) requires factories, offices, and shops to meet certain health, safety, and building standards.

It gives inspectors powers to enter and inspect premises to ensure compliance.

The Act is still in force today and employers must also comply with the Labor Act of 2003 and Workmen's Compensation Act regarding occupational health and safety standards.

The Act has had amendments and refers to other acts:

- ◆ Factories, Offices and Shops Act (Amendment) Law, 1983 (PNDCL 66).1
- ◆ Factories, Offices and Shops Act (Amendment) Law, 1991 (PNDCL 275).2
- ◆ Ghana National Fire Service Act, 1997 (Act 537).3





GSA is the National Statutory Body responsible for developing, publishing, and promoting standards. It achieves this through metrology, standardization and conformity assessment (Testing, Inspection and Certification).

A robust quality infrastructure ensures that goods and services meet acceptable standards, thereby stimulating industrial growth.

The Authority is legally mandated to undertake:

- ◆ National Standards development and dissemination;
- ◆ Testing Services;
- ◆ Inspection Activities;
- ◆ Product certification scheme;
- ◆ Calibration, Verification and Inspection of Weights, Measures and Weighing and Measuring Instruments;
- ◆ Pattern approval of new weighing and measuring instruments;
- ◆ Destination Inspection of imported High Risk goods;
- ◆ Promoting Quality Management Systems in Industry; and
- ◆ Advise the Ministry of Trade and Industry on standards and related issues.



Ministry of Environment, Science, Technology, and Innovation (MESTI)

The Ministry is mandated to initiate and formulate policies on Environment, Science, Technology and Innovation, as well as coordinate, monitor and evaluate the implementation of plans, programmes, and performance of the sector for national development.

Its responsibilities include:

- ◆ Lead and guide the development of sound policies for environment, science, technology, and innovation across the economy.
- ◆ Develop and implement comprehensive regulations and standards for science, technology, and environmental management to drive sustainable development;
- ◆ Foster activities that support the development and implementation of effective standards and policies for scientific and technological advancement.
- ◆ Oversee, monitor, and evaluate all environmental, scientific, technological, and innovation activities while ensuring compliance with national benefit-sharing obligations;
- ◆ Develop comprehensive guidelines, in collaboration with the National Development Planning Commission, for implementing environment, science, technology, and human settlement programs at the district level;
- ◆ Analyze, coordinate, and integrate all environment, science, technology, and innovation programs and budgets to create a unified management system;
- ◆ Support research to develop and update environmental, scientific, technological, and innovation policies, laws, rules, and regulations.
- ◆ Ensure effective environmental management and governance.

More information: <https://mesti.gov.gh/>



Environmental Protection Agency

The Environmental Protection Agency is the leading public body for protecting and improving the environment in Ghana. The Environmental Protection Agency is mandated to:

Policy, Planning, and Coordination

- ◆ Develop and advise on environmental policies.
- ◆ Coordinate environmental activities across government agencies.
- ◆ Set environmental standards and guidelines.
- ◆ Conduct environmental research and analysis.
- ◆ Integrate environmental considerations into national development plans.

Permitting, Monitoring, and Enforcement

- ◆ Issue environmental permits and pollution control notices.
- ◆ Monitor environmental quality and compliance.
- ◆ Enforce environmental laws and regulations.
- ◆ Conduct environmental impact assessments.

Public Awareness and Education

- ◆ Educate the public about environmental issues.
- ◆ Promote environmental awareness and best practices.

International Cooperation

- ◆ Collaborate with international organizations on environmental matters

General Management

- ◆ Manage the EPA's resources and personnel.
- ◆ Collect environmental levies.



The Ghana Shippers Authority (GSA)

GSA is a state agency in the Ministry of Transport. The agency coordinates with public and private institutions that operate within the maritime industry. GSA's primary goal is to protect the needs and solve challenges faced by different shipping players.

Responsibilities include:

- ◆ Safeguard the interests of shippers: port, ship, inland transportation, and other ancillary problems.
- ◆ Guaranteeing a quick, reliable, safe, and cost-effective delivery of cargo.
- ◆ Governing the activities of shippers and service providers in the shipping industry: storage and delivery of cargo by land, air and sea.



Ghana Investment Promotion Centre (GIPC)

GIPC, which is under the Office of the President, seeks to attract investment into Ghana. The Centre is guided by the GIPC Act 2013 (Act 865).

Its responsibilities include:

- ◆ Facilitating investments that would stimulate economic growth within the country.
- ◆ Unlocking opportunities and generating employment.
- ◆ Establishing an appealing incentive framework.
- ◆ Guaranteeing a transparent, predictable, and conducive environment for investments.
- ◆ Providing support services to both local and foreign investors.



GHANA ENERGY COMMISSION (GEC)

GEC is a regulatory body in charge of the development and utilization of resources in the energy sector.

The Commission's responsibilities include:

- ◆ Act as the Government's energy policy advisor by recommending national energy policies to the Minister of Energy.
- ◆ Create national policies for the development and utilization of energy resources like solar, wind, and biomass.
- ◆ Create, evaluate, and consistently update national plans to meet energy demands.
- ◆ Set standards and regulations around the supply, distribution, and sale of electricity and natural gas to consumers through public utilities.
- ◆ Ensure consistent enforcement of legislative instruments nationwide.
- ◆ Encourage competition in the supply, marketing, and sale of renewable energy products and other energy sources.
- ◆ Promote energy efficiency and the effective use of electricity and petroleum products.
- ◆ License public utilities for the transmission, supply, distribution, and sale of electricity and natural gas.
- ◆ Maintain a detailed database to aid national decision-making for the effective development and utilization of energy resources.



MINISTRY OF ENERGY (MOE)

The MOE supervises energy sector agencies, develops and executes the energy policy, while monitoring and evaluating its effectiveness.

MOE's responsibilities include:

- ◆ Formulating the Energy Policy
- ◆ Implementation, monitoring, and evaluating energy policies.
- ◆ Overseeing and coordinating the activities of Energy Sector Agencies to ensure they align with national objectives.
- ◆ Enhance electricity distribution nationwide.
- ◆ Promote private sector involvement in the development of energy infrastructure.
- ◆ Provide a consistent power supply for the Ghanaian population.
- ◆ Lead the energy sector recovery program by executing plans to improve performance.
- ◆ Advancing decarbonization and energy efficiency, with the goal of sustainable development.



Ministry of
Trade and
Industry

MINISTRY OF TRADE AND INDUSTRY (MOTI)

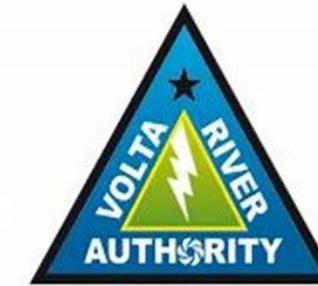
MOTI is a policy advisor for the government, serving industrial and private sector players. The ministry has agencies which promote its goals: Ghana Export Promotion Authority and Ghana Free Zones Authority.

GHANA EXPORT PROMOTION AUTHORITY (GEPA)

GEPA seeks to support the growth of non-traditional exports from Ghana. The key goal of the authority is to accelerate Ghana's economic growth. GEPA does this by conducting strategic marketing of the products that are made in Ghana.

GHANA FREE ZONES AUTHORITY

The authority seeks to support the processing and manufacturing of goods. The Free Zones Programme is focused on creating Export Processing Zones (EPZs) and supporting commercial and service activities at seaports and airports. The programmes offered by the organization make the country attractive to investors.



VOLTA RIVER AUTHORITY (VRA)

VRA is the main agency that is responsible for generating and supplying electricity to the Ghanaian market. VRA was established by the Volta River Development Act, in April 1961. Additionally, VRA is responsible for managing the environmental and social impact of the lake on its neighboring communities.

MINISTRY OF LANDS AND NATURAL RESOURCES (MLNR)

MLNR has the goal of leading and guiding the management of natural resources using policy, asset management and market regulations. MLNR which was established under Section 11 of the Civil Service Law, 1993 (PNDCL 327), ensures the sustainable management and utilization of lands, forests, minerals and wildlife.

COMMERCIAL BANKS

Banks are authorized to work with the GRA during the pre-importation phase. Their responsibilities include remitting payments to the original equipment manufacturer (OEM) or exporting parties, reviewing pre-importation documents, liaising with the GRA, remitting duties and related charges to the GRA, and offering financial advisory to manufacturing companies.

CUSTOMS DIVISION OF GRA

This division offers regulatory services to players in the import and export sector. The customs office does this by instituting effective and efficient economic regulatory systems in the sector. The Customs Division's responsibilities include:

- ◆ Collecting taxes and duties, including import duty, VAT, export duty, petroleum tax, import excise, and other taxes, levies, and fees.
- ◆ Facilitating benchmarking trips.
- ◆ Providing training programs and the necessary certification.
- ◆ Implementing government policies, such as reversing reductions in import values for selected items.
- ◆ Seizing illegal items
- ◆ The Integrated Customs Management System (ICUMS) is a unified e-Customs platform designed to simplify cross-border trade, reduce costs for stakeholders, and improve revenue collection.

Industrial Property Office under the Registrar General's Department

The Industrial Property Office is the department that is in charge of the registration of trademarks, patents and designs. The work done by the Industrial Property Office seeks to allow businesses to acquire legal protection over the use of their intellectual property. There exist different requirements for registration of each of these intellectual properties.

Ghana Stock Exchange (GSE)

GSE regulates the assignment of shares and investment for companies in Ghana. The institution grants approval for manufacturing companies that are keen to get funding from the public.



GRA

GRA supervises the assessment, collection and accounting of tax and other revenues accruing to the Government of Ghana. Companies are required to register for tax and file their audited accounts and tax computations with GRA.