



Renewable energy investment factsheet:

Ghana

1. Macroeconomic profile

Population	34.8 million (2023)
GDP growth	~4% (2024)
GDP growth (historic)	5.4% annual average (2010-2020)
GDP growth (projection)	4.3% (2025)
GNI/capita	USD 2 175.9 (2022)
Inflation rate	20.9% (2024)
Fiscal deficit	4.9% of GDP (2024)
Youth unemployment	19.7% (2022)
Ease of doing business rank	118 (2020)

Major macroeconomic plans

Ghana's Vision 2057 outlines a national goal to become a prosperous, inclusive, and resilient economy by the country's centenary in 2057. The framework emphasises sustainable economic growth, social progress, and environmental stewardship. Key priorities include macroeconomic stability, industrial transformation, sustainable infrastructure, private sector development, and human capital enhancement. The key Priorities of Vision 2057 are:

- **Macroeconomic Stability:** Strengthening fiscal management, reducing public debt, and ensuring monetary stability.
- **Industrialisation & Sector Growth:** Expanding agriculture, manufacturing, mining, and services to create a diverse, high-value economy.
- **Sustainability & Climate Goals:** Reducing carbon emissions, increasing forest coverage, and advancing renewable energy.
- **Private Sector & Trade Expansion:** Enhancing foreign direct investment (FDI), supporting SMEs, and boosting exports.
- **Human Development:** Improving education, healthcare, gender equity, and employment opportunities (NDPC, 2024).



Key economic transformation goals

	2021	2057 target	Expected impact
Annual GDP growth	5.40%	7%+	Sustainable expansion & job creation
Poverty rate	24.20%	<5%	Reduced inequality & improved welfare
Manufacturing GDP share	11.20%	25%	Stronger industrial base & value-added exports
Agriculture GDP share	20.80%	15%	Enhanced productivity & diversification
GHG emissions (MtCO ₂ e)	39	0.85	Transition to green economy

2. Energy profile

Installed capacity	5 500 MW (2024)
Renewable energy share	31.6% (Including Hydropower)
Hydropower	93.4% of Renewable Energy Capacity
Solar energy	6.6% of Renewable Energy Capacity
Electricity access	88.58% (2023)
Urban electricity access	97% (2023)
Rural electricity access	74.5% (2023)

Energy transition and green industry development plans

	Objective	Targets
Ghana energy transition and investment plan	Achieve net-zero emissions by 2060 while ensuring economic growth and sustainability.	Implement renewable energy, energy efficiency, hydrogen, e-mobility, energy storage, and sustainable cooking solutions.
National electricity access plan	Achieve universal electricity access for all Ghanaians by 2030.	96% on-grid and 4% off-grid electrification by 2030.
Power sector network development plan	Expand and modernise electricity infrastructure to improve reliability and meet growing demand.	Increase grid connections nationwide and upgrade transmission and distribution networks.
Renewable energy expansion strategy	Transition Ghana's energy mix towards clean and sustainable sources.	70% of electricity generation from renewable energy by 2060, prioritising solar, wind, and hydro.
e-mobility and transport electrification plan	Reduce transport sector emissions through widespread electrification.	100% electric vehicle (EV) sales by 2060, including battery EVs and hydrogen-powered transport.
Clean cooking transition plan	Improve access to modern, cleaner cooking solutions to enhance health and energy efficiency.	Eliminate traditional biomass use by 2030, replacing it with LPG, improved biomass, and electric cookstoves.



Key renewable energy policies & incentives

	Policy/incentive	Objective
Regulatory measures	Net metering, competitive procurement framework, biofuels blending mandates	Encourage decentralisation, renewable energy integration, and cost reductions.
Fiscal incentives	VAT & sales tax reductions, investment tax credits, green credit lines	Lower investment costs for private developers and industries.
Public investments	Loans, grants, capital subsidies, rebates (e.g., World Bank, GIZ, KfW projects)	Support renewable project financing & infrastructure development.
Investment climate	Streamlined licensing, competitive bidding for PPAs, risk reduction mechanisms	Increase transparency & investor confidence, de-risk projects.
Off-grid electrification	Mini-grid and standalone solar home system programs	Expand electricity access to remote areas.
Electric mobility	National Electric Vehicle Policy, charging infrastructure investment	Reduce transport emissions, promote electric vehicles.
Clean cooking	Improved cookstove distribution, LPG promotion, carbon financing incentives	Reduce biomass reliance, improve health, and lower emissions.
Energy transition goals	Target of 10% renewable energy in power mix by 2030	Increase renewable generation from solar, wind, and hydro.

Major strategies and incentives targeting RE investments

- Long-term PPAs (15-20 years) under competitive procurement to attract private investment.
- VAT and import duty exemptions for renewable energy equipment to lower costs.
- PPPs promoted large-scale renewable projects.
- Expanding net metering with 12 000+ smart meters.
- Upcoming solar & wind auctions, including a 100 MW solar auction backed by the World Bank.
- Leveraging carbon markets & results-based financing (RBF) for clean energy projects.



Energy sector bottlenecks to be addressed

Bottleneck	Impact	Government efforts (ongoing)
High debt burden in energy sector	Limits financing, increases fiscal pressure	Energy Sector Recovery Programme (ESRP), debt restructuring efforts
Take-or-Pay surplus PPAs	Financial strain on Electricity Company of Ghana (ECG)	ESRP reforms, renegotiation of excess capacity PPAs
Utility solvency issues	Increase investment risk, high losses (30%)	Cash Waterfall Mechanism (CWM), tariff adjustments
Foreign currency shortage	Creates uncertainty for Power Purchase Agreements (PPAs)	Indexed tariff mechanisms, forex management strategies
Single-buyer power market	Limits private sector entry and competition	Gradual liberalisation, consideration of competitive wholesale market
Grid expansion delays	Slows electrification and renewable energy integration	National Grid Expansion Plan, infrastructure investment
Transmission congestion	Limits renewable energy deployment and exports	Investments in new transmission lines, regional interconnections
Revenue collection inefficiencies	Reduces financial sustainability of utilities	Prepaid metering, digital payment systems, energy efficiency programs

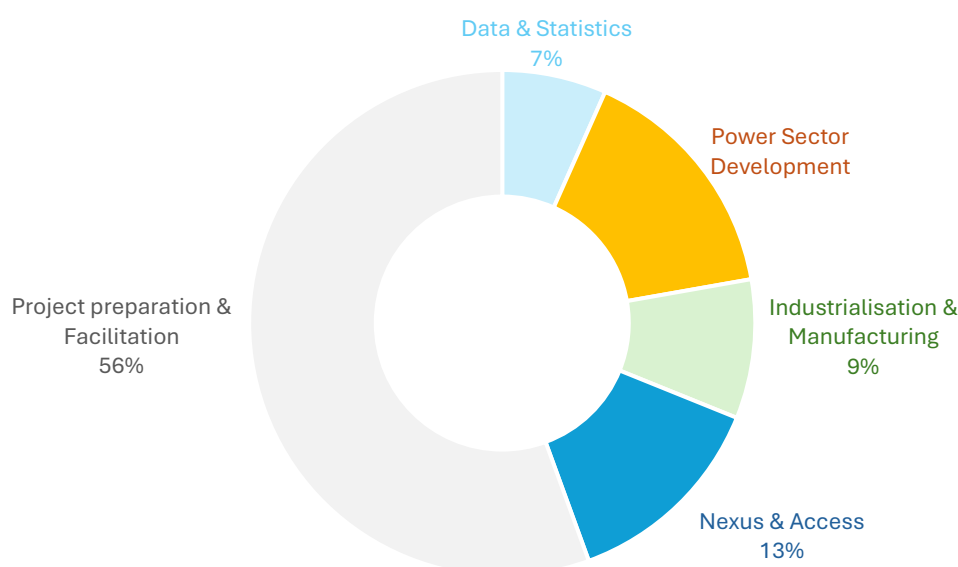


3. Country engagement

Engagement with Ghana was formalised through a consultation on 15–17 July 2024. National stakeholders reviewed mechanisms to increase private sector participation and advance large-scale clean energy projects. The action plan, developed subsequently, prioritises the design and implementation of renewable energy auctions, capacity expansion for solar and wind power, and improved access to sustainable energy solutions in underserved regions. Key activities include developing risk-sharing mechanisms, expanding mini-grid and off-grid electrification, strengthening policy frameworks for competitive procurement, enhancing grid infrastructure for renewable integration, and mobilising innovative financing for clean energy investments.

Number of actions: 25

Distribution of actions by thematic areas



4. Investment prospects

Ghana is a leading destination for renewable energy and green industry investments in West Africa, targeting 70% renewable electricity by 2060. With a strong resource base, investor-friendly policies, solar and wind auctions, tax incentives, and PPPs, its expanding energy infrastructure offers prime opportunities in a rapidly growing, sustainability-focused market.