

WEST AFRICA



Ghana

GDP: **\$47.9bn**

Five-year economic growth rate: **13%**

Population: **26m**

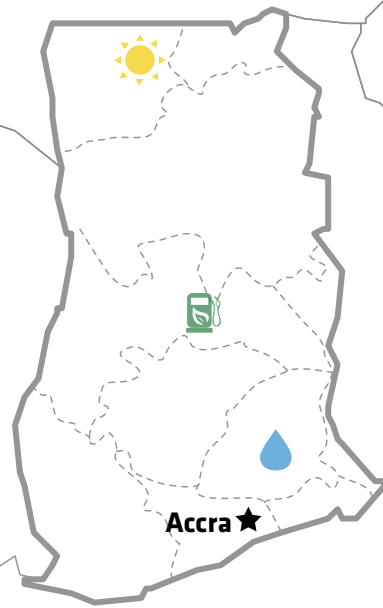
Total clean energy investments, 2006-2013: **\$30m**

Installed power capacity: **3GW**

Renewable share: **0.1%**

Total clean energy generation: **3GWh**

Top energy authority: **Ministry of Energy and Petroleum**



OVERALL RANKING
2014

26

OVERALL SCORE
2014

1.15

PARAMETER	RANKING	SCORE
I. Enabling Framework	29	1.17
II. Clean Energy Investment & Climate Financing	52	0.17
III. Low-Carbon Business & Clean Energy Value Chains	19	2.44
IV. Greenhouse Gas Management Activities	14	1.77

SUMMARY

Ghana placed 26th out of the 55 countries surveyed by *Climate-scope* 2014, scoring 1.15. It was strongest on Clean Energy Value Chain Parameter III, and Greenhouse Gas Management Activities, Parameter IV, taking 19th and 14th places, respectively. In contrast, it ranked fourth from bottom for Clean Energy Investment Parameter II, reflecting its meager track record in securing investment.

The country has almost no on-grid clean power generating capacity other than large hydro, which comprises more than half of national installed capacity. The rest is made up of fossil fuel plants, apart from one small utility-scale PV project. This

mix may change as a feed-in tariff (FiT) took effect in Q3 2013, though the several renewable energy projects under development face high local currency risk.

The FiT was one of four main components of the Renewable Energy Act of 2011. Other aspects are at varying degrees of implementation, including a Renewable Energy Fund, a biofuel blending mandate and net metering guidelines. Following introduction of the act, the government announced it was targeting 500MW of renewable energy capacity – roughly 10% of the energy mix – by 2020.

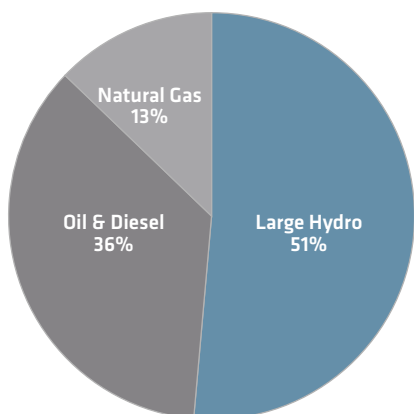
For further information, access www.global-climatescope.org/ghana

PARAMETERS AT A GLANCE

Ghana's power sector is unbundled but remains predominantly state-owned. There is a growing number of independent power producers, yet over 75% of generation assets belong to the government-owned Volta River Authority. The transmission and distribution companies, while legally separate entities, are also owned by the government.

INSTALLED POWER CAPACITY BY SOURCE, 2013 (%)

3GW total installed capacity



Source: Bloomberg New Energy Finance, Ghana Energy Commission
 Note: Some values cannot be graphically represented due to scale, please see source data for the complete numbers

The country scored well on the policy and regulation aspect of Enabling Framework Parameter I, especially where it related to distributed energy: mini-grids are a key component of Ghana's Energy Development Access Project, which has overseen a surge in electrification from 61% in 2009 to 72% in 2012. However, the country ranked a relatively poor 29th on Parameter I, owing to the very low levels of installed clean energy capacity.

Ghana ranked a lowly 52nd for Clean Energy Investment Parameter II, as just \$30m has been recorded since 2006, for two solar projects financed in 2013. A planned 225MW wind farm project was acquired by Irish developer Mainstream

KEY POLICIES

Feed-in Tariff	A 10-year fixed tariff for wind, solar, hydro, biomass and biogas projects took effect in 2013.
Energy Target	The energy ministry set a notional target of 500MW of installed renewable energy – roughly 10% of the energy mix – by 2020.
Tax Incentives	Investors are eligible for accelerated depreciation and import duty exemptions.
Utility Regulation	The Renewable Energy Act of 2011 includes a purchase obligation, alongside a new renewable energy fund and a biofuel blending mandate, which as of Q2 2014 had yet to be implemented.

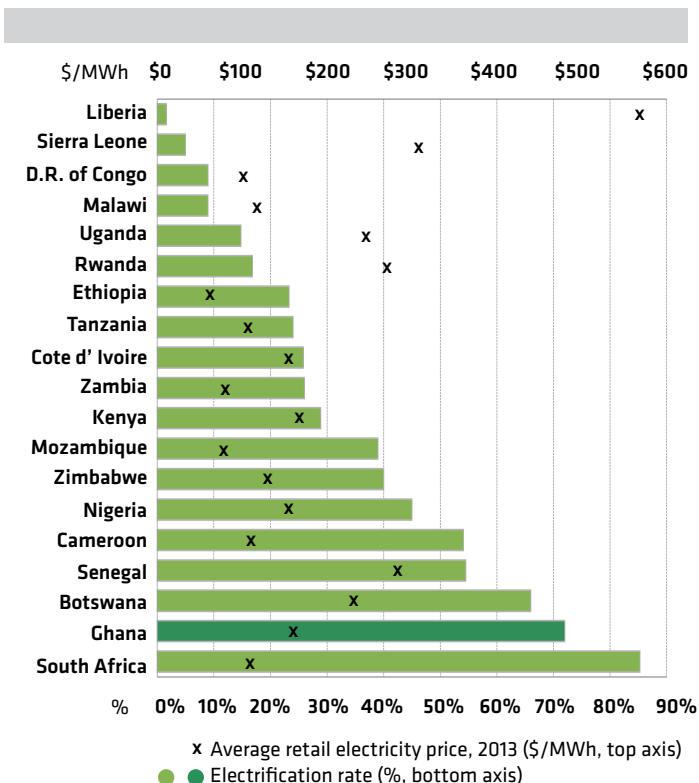
Source: Bloomberg New Energy Finance Policy Library

Renewable Power in Q3 2014, while over 1GW of PV projects have been announced, with 170MW in more advanced stages of development. However, these projects may be held back by the challenging macroeconomic situation – the new FIT is denominated in Ghanaian currency, which has recently faced rapid depreciation – while the government is targeting only around 250MW of solar capacity. As of Q4 2014, Ghana is believed not to be accepting applications for more provisional licenses.

Within Low-Carbon Business and Clean Energy Value Chains Parameter III, Ghana finished 19th, scoring well for its emerging solar, biomass and biofuel sectors. The country also has several service providers, including those related to distributed energy, reflecting its strong economic position within the region.

The country ranked 14th on Greenhouse Gas Management Activities Parameter IV. While it does not have specific carbon reduction targets or mechanisms, the Environmental Performance Rating and Public Disclosure program publicly rates companies on their emissions reporting. Ghana also scored well on CDM Risk as the country's carbon finance projects have had a relatively high rate of implementation.

ELECTRIFICATION RATES (%) VS AVERAGE RETAIL ELECTRICITY PRICES, 2013 (\$/MWh)



Source: Bloomberg New Energy Finance