

WEST AFRICA



Ghana

GDP: **\$38.6bn**

Five-year economic growth rate: **3.7%**

Population: **26.4m**

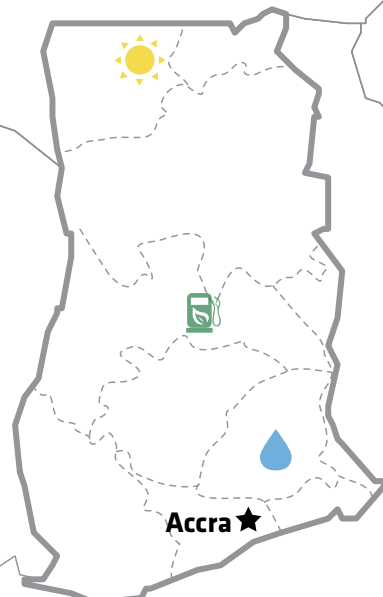
Total clean energy investments, 2009-2014: **\$30.7m**

Installed power capacity: **2.9GW**

Renewable share: **0.1%**

Total clean energy generation: **3.0GWh**

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



OVERALL RANKING
2014

26

2015

28

OVERALL SCORE
2015

1.07

| PARAMETER | RANKING | SCORE |
|---|-----------|-------------|
| I. Enabling Framework | 36 | 1.05 |
| II. Clean Energy Investment & Climate Financing | 50 | 0.17 |
| III. Low-Carbon Business & Clean Energy Value Chains | 20 | 2.20 |
| IV. Greenhouse Gas Management Activities | 15 | 1.76 |

SCORE SUMMARY

Ghana scored 1.07 in *Climatescope* 2015, ranking it 28th on the list of countries overall, just two places below its position in 2014. The country's best performance came on Greenhouse Gas Management Activities Parameter IV.

On Enabling Framework Parameter I, Ghana's score fell slightly. Nevertheless, it remained strong in the area of policy on access to energy thanks to initiatives such as its rural electrification programme and the presence of a clean energy plan.

On Clean Energy Investment and Climate Financing Parameter II, the country ranked 50th overall, owing to very low levels of investment to date.

Ghana was ranked 20th on Low-Carbon Business & Clean Energy Value Chains Parameter III, reflecting, among other things, a reasonably well-developed distributed clean energy sector.

On Parameter IV, the country ranked third highest in Africa, but 15th overall, thanks to relatively low levels of CDM risk and the presence of capacity building around GHG management.

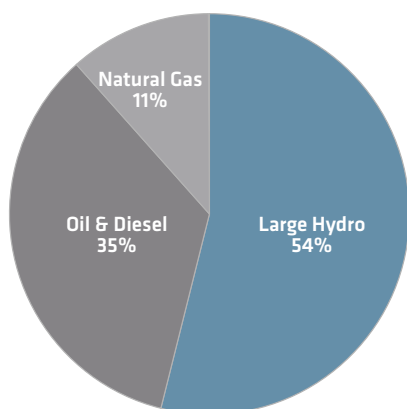
For further information, access www.global-climatescope.org/en/country/ghana

OVERVIEW

Ghana has one of the more liberalized power sectors in Africa. Since 2006, the country has added 1.2GW of oil, diesel and gas power projects. This has yet to be emulated in the renewable energy sector, though the country has seen a large amount of interest in its feed-in tariff (FiT) program.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.9GW total installed capacity



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

Until late 2013, when Ghana's first utility-scale PV plant came online, renewable energy production came solely from distributed PV generation, which currently amounts to about 5MW across thousands of small installations. This distributed capacity was built through both on- and off-grid development aided by Ghana's Energy Development Access Project (GE-DAP) and has contributed to the country's high electrification growth rate, which stood at 72% in 2012, up from just over 60% in 2009.

The country has set targets for 5GW overall power generating capacity by 2016, and a 10% renewables share by 2020. While the former will likely not be met, the renewables 2020 target remains a possibility. That will largely depend on grid capacity, with impact studies underway.

KEY POLICIES

| | |
|---------------------------|--|
| Feed-in Tariff | A 10-year fixed tariff for wind, solar, hydro, biomass and biogas projects took effect in 2013. New levies on petroleum products to fund the scheme and other energy sector investments were introduced in 2015. |
| 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. |

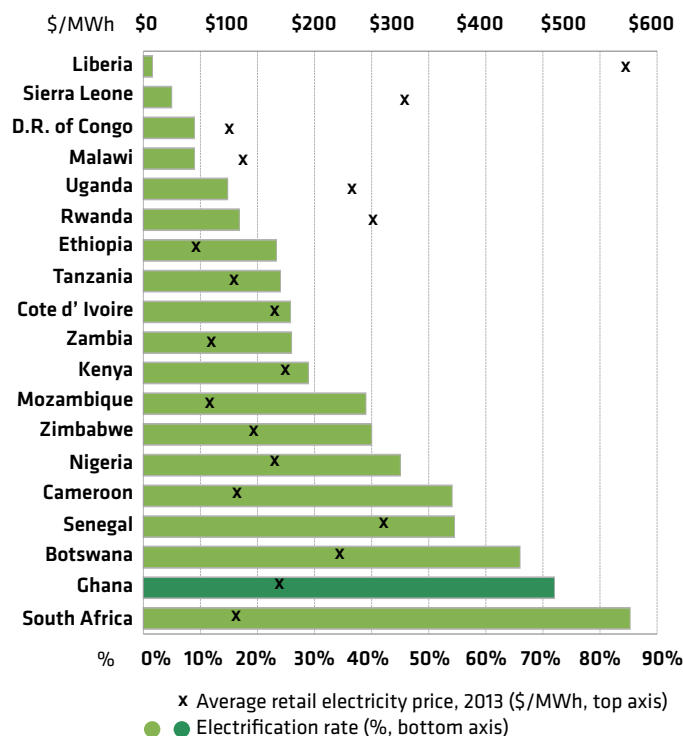
Source: Bloomberg New Energy Finance Policy Library

In 2011, the government introduced the Renewable Energy Act, which comprises five main components all aimed at incentivizing renewable energy investment in the country. They are the FiT, a renewable energy purchase obligation, renewable energy fund, biofuels blending and net metering.

Interest in Ghana's FiT sharpened after the rates were raised in September 2014. Included in the new regulations was a cap put on the size of solar PV projects to maintain grid stability. However, developers have raised concerns over the duration of the power purchase agreement (PPA) as they only guarantee rates for 10 years, and the credit worthiness of the Electricity Company of Ghana, which buys 72% of all power.

Ghana offers import duty exemptions on equipment and while renewable energy is not mentioned specifically, companies do receive them for renewables products. New equipment and machinery can qualify for accelerated depreciation.

ELECTRIFICATION RATES (%) VS AVERAGE RETAIL ELECTRICITY PRICES, 2014 (\$/MWh)



Source: Bloomberg New Energy Finance