

Sierra Leone

GDP: **\$4.9bn**

Five-year economic growth rate: **13.7%**

Population: **6.2m**

Total clean energy investments, 2009-2014: **\$382.0m**

Installed power capacity: **219.8MW**

Renewable share: **40.4%**

Total clean energy generation: **154.0GWh**

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



★ Freetown

OVERALL RANKING

2014

2015

44 40

OVERALL SCORE

2015

0.79

PARAMETER	RANKING	SCORE
I. Enabling Framework	28	1.19
II. Clean Energy Investment & Climate Financing	27	0.49
III. Low-Carbon Business & Clean Energy Value Chains	44	0.86
IV. Greenhouse Gas Management Activities	51	0.27

SCORE SUMMARY

Sierra Leone scored 0.79 in *Climatescope* 2015, placing it 40th on the list of countries overall. The country's highest score was on Clean Energy Investment and Climate Financing Parameter II.

On Enabling Framework Parameter I, Sierra Leone gained five places to rank 28th. Its score was supported by an increase in the volume of installed clean energy capacity, relatively high diesel and kerosene prices and growing demand for power.

The country was also positioned quite high on Parameter II. Although it slipped one place to 27th, the score was underpinned

by investment to date – particularly in the Addax plant – and a modest recent increase.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Sierra Leone was placed 44th, a decline of two places. This reflected the small number of service providers and value chains.

On Greenhouse Gas Management Activities Parameter IV, the country sat in 51st position.

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

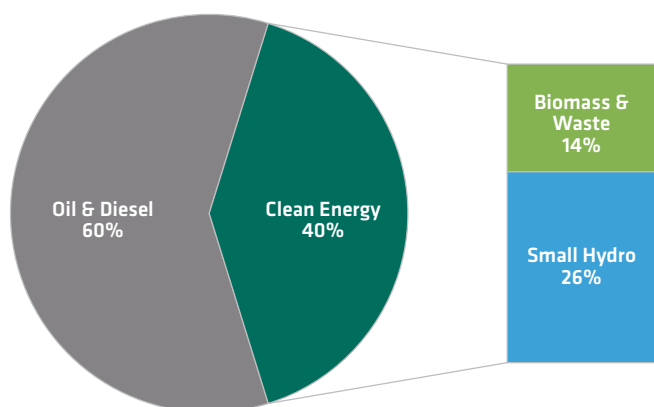
OVERVIEW

Sierra Leone's electrification rate, estimated at 9%, is one of the lowest in the world. Average electricity tariffs are high (\$0.27 per kWh), but were considerably higher in 2008 (\$0.41 per kWh) before the rehabilitation of the Bumbuna hydro power plant.

Much of Sierra Leone's infrastructure, including its power network, was destroyed during the war and is being rebuilt slowly. At the end of 2014, total installed capacity on the national grid around the capital Freetown was 98MW, comprising small hydro (56MW), thermal (27MW) and biomass (15MW). However, hydro generation decreases drastically during the three-month dry season. Captive thermal generation by industry – predominantly owned by mining companies – is estimated at around 90MW. Transmission and distribution infrastructure is in poor condition resulting in power losses of up to 40%.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

220MW total installed capacity



Source: Bloomberg New Energy Finance, UNDP, Addax Bioenergy

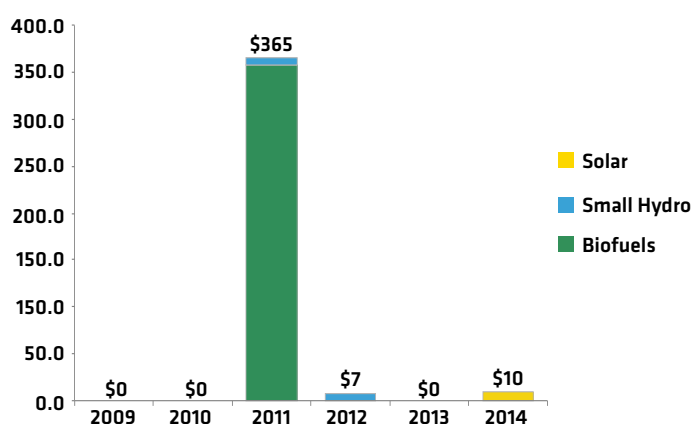
In 2011, the National Electricity Act mandated the separation of the National Power Authority, the state-owned utility, into separate companies for generation and transmission, on the one hand, and distribution on the other. This unbundling took effect on 1 January 2015, with the creation of the Electricity Generation and Transmission Company and the Electricity Distribution and Supply Authority.

In addition, the National Electricity Act opened the door to investment by independent power producers. Despite a lack of specific policy incentives, the country has been relatively successful in attracting private investment to the power sector in recent years, driven by its ambition to reach 1GW by 2017.

The Bumbuna hydro power plant (50MW), funded by development partners, was commissioned in 2011. In 2013 the government agreed with Joule Africa and Endeavor Energy to add an additional 200MW to the Bumbuna site. The project was estimated to cost \$750m, but there are doubts over whether the project will go ahead. In May 2014, the 32MW Addax biomass plant, running on bagasse feedstock and adding 15MW to the national grid, was commissioned, though it has recently faced financial and technical difficulties. In 2014, the government announced it had awarded a contract to build a 6MW PV plant in Freetown.

ANNUAL INVESTMENT IN CLEAN ENERGY, 2009-2014 (\$m)

\$382m total cumulative investment



Source: Bloomberg New Energy Finance

Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

A transmission project to interconnect the West African Power Pool countries of Sierra Leone, Guinea, Liberia and Ivory Coast was approved in 2013 and is expected to be completed by 2017.