# Senegal

GDP: \$15.6bn

Five-year economic growth rate: 3.8%

Population: 14.5m

Total clean energy investments, 2009-2014: \$0.0m

Installed power capacity: 864.0MW

Renewable share: 0.0%

Total clean energy generation: 0.0GWh

Top energy authority: Ministry of Energy and Mines

OVERALL RANKING

2015

**OVERALL SCORE** 

2015

37 36 O.86

| PARAMETER  | RANKING | SCORE |
|--|---------|-------|
| I. Enabling Framework                                | 31      | 1.18  |
| II. Clean Energy Investment & Climate Financing      | 54      | 0.02  |
| III. Low-Carbon Business & Clean Energy Value Chains | 25      | 1.86  |
| IV. Greenhouse Gas Management Activities             | 41      | 0.69  |

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# SCORE SUMMARY

Senegal scored 0.86 in Climatescope 2015, placing it 36th on the list of countries overall, an increase of one place compared with 2014. Its highest score was on Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Enabling Framework Parameter I, Senegal dropped one place to rank 31st. Its score drew support from the country's energy access policies, the relatively high prices of diesel and kerosene and growing demand for power.

The country slipped one place to 54th position on Clean Energy Investment and Climate Financing Parameter II, reflecting the absence of investment in projects so far.

Senegal also fell on Parameter III, losing three places to rank 25th. Its score was underpinned by the development of a number of value chains and service providers.

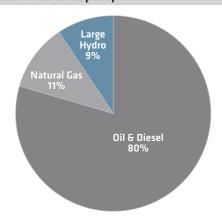
On Greenhouse Gas Management Activities Parameter IV, the country jumped six places to rank 41st thanks to an increase in its carbon offsetting activity.

### **OVERVIEW**

Senegal, which in late 2014 discovered offshore oil reserves, is first and foremost a country with abundant solar, wind and bioenergy potential. The government has recognized this potential for some time: the national utility first applied renewable energy to rural electrification in the late 1970s.

# **INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)**

#### 864.0MW total installed capacity



Source: Bloomberg New Energy Finance, Société National d'Éléctricité du Sénégal

However, the lack of a clear legal framework, weak implementation capacity within the government and at the national power company, and disappointing economic growth, have all held back the development of the power sector: its capacity is 864 MW for 14m inhabitants. The government thus plans to add 545MW of fossil capacity (mostly coal), interconnection capacity with Mauritania (where gas was recently discovered) and 150MW of wind and 80MW of solar by the end of the decade, with further potential for independent producers. Some of those wind and solar projects have already signed power purchase agreements (PPAs) with the national utility, SENELEC.

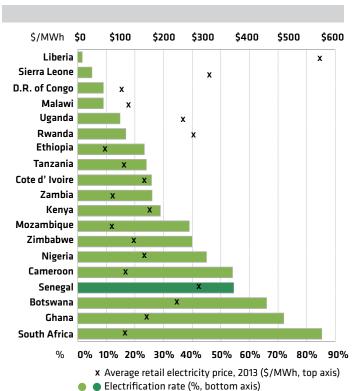
# **KEY POLICIES**

| Energy Target  | 15% renewable energy (excluding biomass) in the electricity supply by 2025.  |
|----------------|--|
| Auction        | Project developers will compete for power-purchase agreements through tenders starting with one for 50MW of solar supported by the World Bank in 2015. An initial 310MW 'transitional' tender was completed in 2013. |
| Net Metering   | A law passed in 2011 allowing net metering for small-<br>scale solar thermal and PV, small hydro, biomass and<br>marine projects. But implementation is pending.   |
| Tax Incentives | Renewable energy projects developed within one of Senegal's rural electrification concessions are eligible for various tax reductions and import duty exemptions.  |

Source: Bloomberg New Energy Finance Policy Library

In 2015, Senegal is also expected to launch the first tender within the framework of its renewable energy law, which was ratified alongside its implementing decrees in 2011-12. The law targets renewable sources covering 15% of primary energy supply (excluding biomass) by 2025. It will cover 50-100MW of solar and is supported by the World Bank. The completion of the first tender, and the commissioning of projects which already hold PPAs, could take Senegal's on-grid renewable energy capacity from 2MW today to at least 150MW of wind and 132MW of solar by the end of the decade.

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



Source: Bloomberg New Energy Finance

In parallel to the development of its main grid, Senegal is also advancing its rural electrification program. While rural electrification has been active for over a decade and faced considerable delays, there now appears to be momentum. The program splits the country into 10 concession areas, of which six have had land allocated, and construction is underway in three. Concession holders are granted a monopoly of 15 to 25 years in the area and are supported by government funds based on performance.