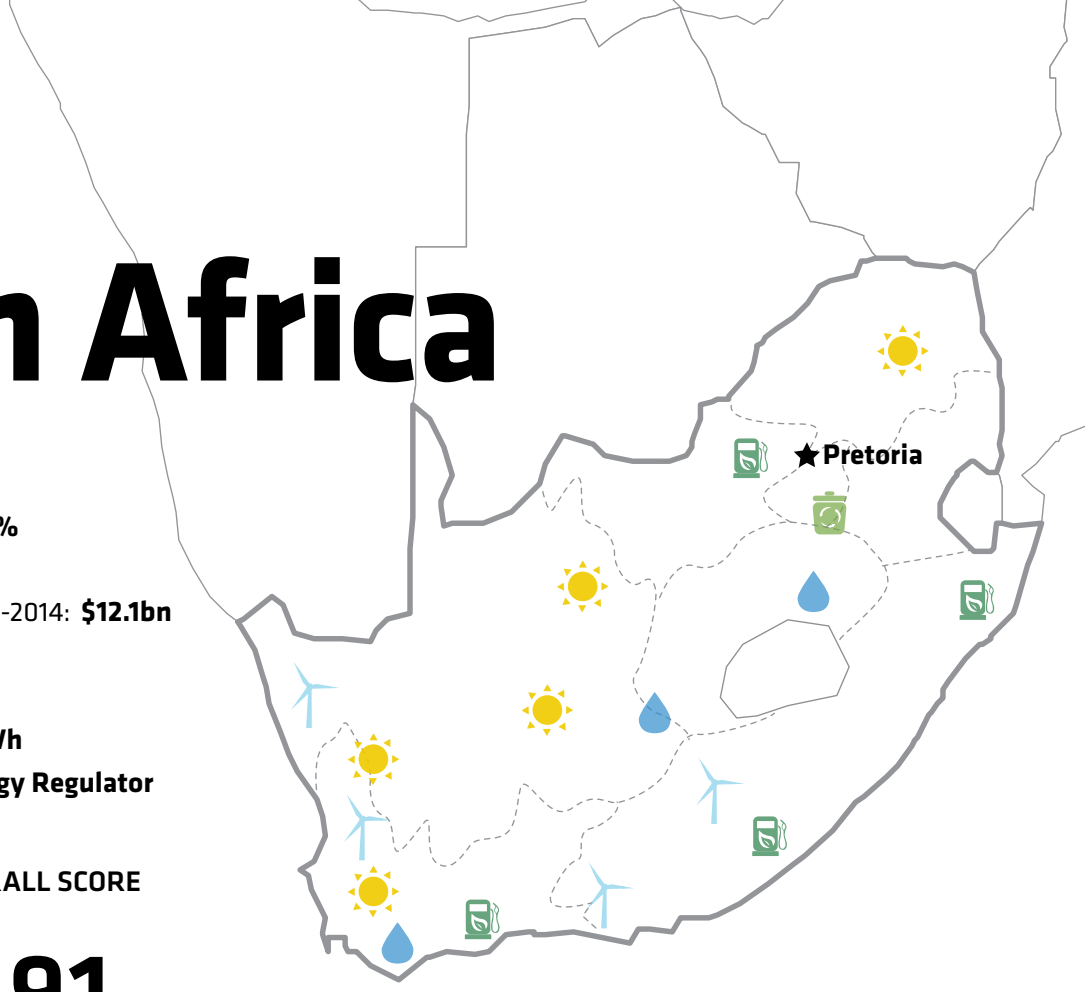
South Africa



GDP: **$349.8bn**
Five-year economic growth rate: **-1.4%**
Population: **54.0m**
Total clean energy investments, 2009-2014: **$12.1bn**
Installed power capacity: **44.9GW**
Renewable share: **4.4%**
Total clean energy generation: **3.3TWh**
Top energy authority: **National Energy Regulator**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
3	4	1.91

PARAMETER	RANKING	SCORE
I. Enabling Framework	06	1.70
II. Clean Energy Investment & Climate Financing	24	0.56
III. Low-Carbon Business & Clean Energy Value Chains	04	4.28
IV. Greenhouse Gas Management Activities	06	2.77

SCORE SUMMARY

South Africa scored 1.91 in *Climatescope* 2015, ranking it 4th on the list of countries overall, one place lower than in 2014. Its highest finish was on Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Enabling Framework Parameter I, South Africa climbed to 6th place among all nations in 2015, compared with 36th in 2014. This jump reflected strong growth in the amount of installed clean energy generating capacity.

On Clean Energy Investment and Climate Financing Parameter II, however, the country plummeted to 24th place on the list, having been second overall in 2014. This largely reflected a fall – or rather, delays – in new clean energy investment.

South Africa ranked fourth overall on Parameter III thanks to its well-developed financial sector and relatively high number of service providers.

On Greenhouse Gas Management Activities Parameter IV the country ranked 6th overall reflecting its offset project activity and high level of corporate awareness.

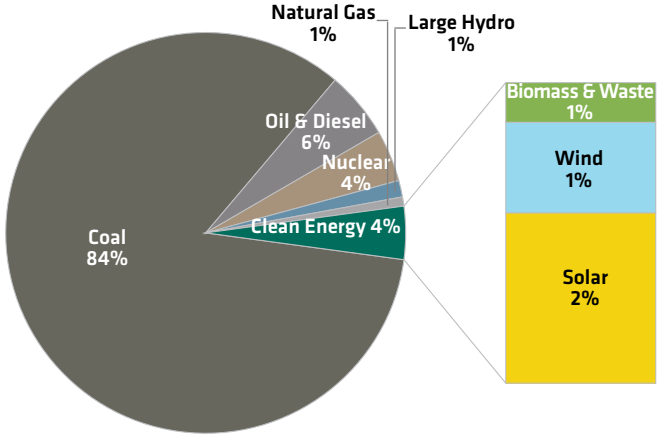
For further information, access www.global-climatescope.org/en/country/south-africa

OVERVIEW

South Africa's power sector continues to be dominated by an aging coal-fired power plant fleet that accounts for 85% of the energy mix. Their reliability has become a major issue: the national utility Eskom has maintenance backlogs, which means it can only run around two-thirds of its installed capacity. As a result, rolling black-outs plague the system. Dependence on fossil fuels is starting to change, however, with 1.3GW of renewable capacity added under the flagship Renewable Energy Independent Power Producer Programme (REIPPP).

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

44.9GW total installed capacity



Source: Source: Bloomberg New Energy Finance, Eskom

KEY POLICIES

Energy Target	Plan to build 17.8GW of new renewable capacity by 2030 under the Integrated Resource Plan.
Auction	Series of auctions under the Renewable Energy Independent Power Producers Procurement Programme for almost 7GW, started in 2011. A dedicated program for small project is to be rolled out.
Biofuels	Proposed mandate to blend up to 10% ethanol with gasoline and 5% biodiesel with diesel from 2015.
Debt/Equity Incentives	Several public funds with increased funding in 2015 are available for early-stage financing for green initiatives, clean energy manufacturers and energy efficiency.
Utility Regulation	A demand-side management scheme obliges state utility ESKOM to implement efficiency measures either directly or through third parties.
Tax Incentives	Renewable energy and biofuels producers are eligible for accelerated depreciation, while a tax deduction is available for energy efficiency measures.

Source: Bloomberg New Energy Finance Policy Library

In 2010, South Africa released its Integrated Resource Plan which outlines the country's energy build-out strategy to 2030. Under the plan the country seeks to increase its power capacity from 43GW to 89.5GW, with renewables making up as much as 20% of the mix. Wind and solar PV make up the largest portions of the renewables mix, receiving 9.2GW and 8.4GW, respectively.

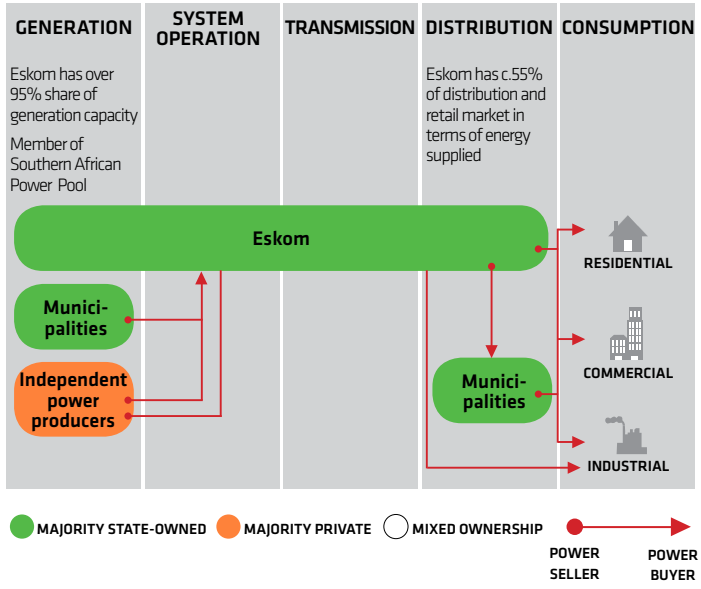
The 2010 plan is considered somewhat outdated due to a slow-down in economic growth and costs associated with various technologies. An updated plan was released in 2013 which reduced the capacity target to 81GW, but this was never promulgated.

Eskom is the country's single largest generator, with over 95% of the market share, and is the sole buyer of electricity in the country. It also runs the transmission and the majority of the distribution system, with municipalities distributing within their regions.

South African energy regulator NERSA started to implement a feed-in tariff in April 2009. However, by August 2011 this was abandoned in favor of reverse auctions under the REIPPP. Eskom also has had a demand-side management programme since 2008 offering incentives for energy efficient technologies.

POWER SECTOR STRUCTURE

Regulator: NERSA (National Energy Regulator of South Africa)



Source: Bloomberg New Energy Finance

The REIPPP means independent power producers are starting to increase their share. Outside of the REIPPP the government has launched tenders for coal, gas and cogeneration totalling 6.4GW as the country seeks to reduce Eskom's load-shedding episodes. One of the more controversial government plans is to procure a new generation of nuclear plants, with a decision on a tender for up to 9.6GW slated for the coming months.

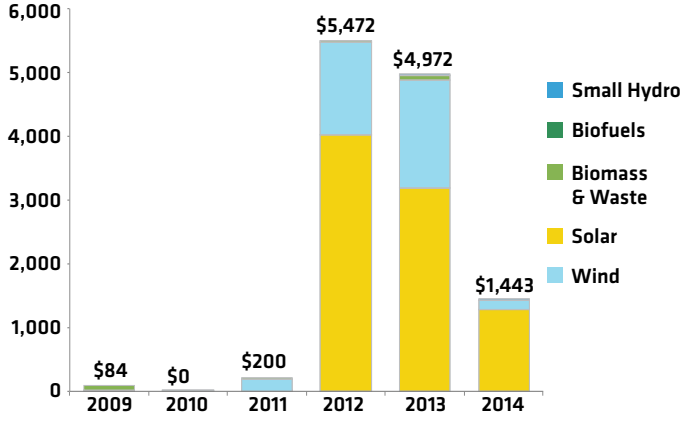
In 2014, South Africa began to reap the rewards of the REIPPP tenders, with the total installed renewable capacity surpassing 1.3GW. The largest contributor was solar PV with 774MW, followed by wind with 570MW.

While 2014 investment figures were down compared to previous years, this is due to Round 3 projects undergoing a staggered financial close. This is a different approach compared to previous years where all the projects had the same date to reach financial close. The main reason behind this was to protect the South African rand, which around financial close would experience large spikes due to the hedging activity taking place.

South Africa ran three REIPPP tenders in 2014: the Round 3b for solar thermal in March, the small-scale programme in April and Round 4 of the programme in August. Round 3b saw 200MW of solar thermal capacity up for grabs, which was awarded in January 2015. The small-scale programme commenced in April 2014 and will have four submission windows of 50MW each for projects between 1-5MW. Round 4 submissions opened in August 2014 with 1.1GW available; wind received 590MW of the available capacity and PV 400MW.

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

$12.1bn total cumulative investment



Source: Bloomberg New Energy Finance
Notes: Total investments includes: Asset Finance, Corporate Finance and Venture Capital/ Private Equity Commitments.

While the REIPPP has experienced a number of delays surrounding bid announcements, overall the program to-date has procured 6.3GW of renewables, with the majority under construction or yet to be financed. In comparison to the large scale REIPPP, the small scale programme has struggled due to the upfront transaction costs of bidding, but this is set to change with a new financing facility set up to reduce those costs for small developers.

The main reason for the delays surrounds Eskom and its cash flow issues, which have resulted in slow progress in constructing new substations and connecting projects to the grid. The utility's cash shortages stem from its historically suppressed tariffs. It has sought rate increases, some of which have been rejected while others were approved at smaller-than-requested levels.

South Africa's expansion of renewable capacity grew further in 2015, when the government awarded 2.2GW of renewables under the Round 4 bidding window and announced it will be running an expedited bidding window to procure a further 1.8GW. In April 2015, the government announced it would seek to procure a further 6.3GW of renewables, predominantly made up of wind and solar. With the addition of this South Africa is on track to reach its 2030 target under the Integrated Renewables Plan.

LEAGUE TABLE

2014 Total Investors	$1,443m

Top Three Lead Debt Arrangers 2014 ($m)

1st	Old Mutual PLC	$166m
2nd	European Investment Bank	$131m
3rd	Investec PLC	$93m

Top Three Equity Sponsors 2014 ($m)

1st	Sonnedix BV	$120m
2nd	Mulilo Renewable Energy Pty	$72m
3rd	TOTAL SA	$48m

Top Three Asset Finance Deals, 2014 ($m)

Rank	Sector	Project	Developer	Value
1st		Sonnedix Prieska PV Plant	Sonnedix	$217m
2nd		Soitec Touwsrivier PV Plant Refinancing	Soitec	$201m
3rd		Total Prieska PV Plant	Total -Calulo Renewable Energy	$190m

Source: Bloomberg New Energy Finance
Notes: Figures refer to asset finance investments committed in 2014 and include balance sheet commitments

Biofuels blending was to come into force in October 2015, but as of Q2 2015 the government had not released the pricing or final position paper. The government is currently revamping the funding incentives due to the decline in crude oil prices. The initial target will seek to have biofuels make up 2% of the country's current motor fuel demand of 400m litres.

South Africa offers other incentives including grants-for-equity in large-scale manufacturers, debt and equity financing for green initiatives and tax incentives for manufacturers and developers of large-scale projects. Since the launch of the REIPPP and manufacturing incentives, the country has seen its clean energy manufacturing sector flourish. In the solar sector the country now has a number of module and inverter production facilities, and blade and tower manufacturers are active within the wind sector.

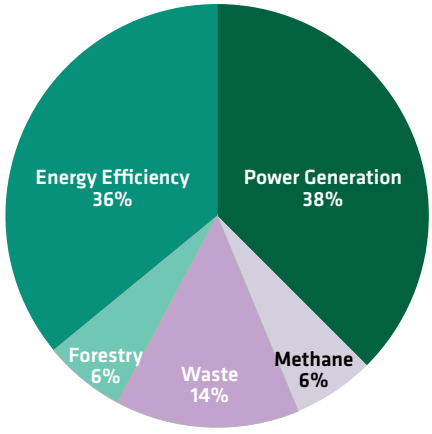
FINANCIAL INSTITUTIONS IN CLEAN ENERGY

✓	**Banks**	✓	**Corporate Finance**
✓	**Funds**	✓	**Impact Funds**
✓	**Private Equity / Venture Capital**		

Source: Bloomberg New Energy Finance
Note: Refers to types of institutions that finance clean energy projects. Check means that at least one institution is active in that segment in the country

CARBON OFFSET PROJECTS BY SECTOR

64 CDM and voluntary carbon offset projects



Source: UNEP Risoe, Bloomberg New Energy Finance

CLEAN ENERGY VALUE CHAINS BY SECTOR

Sector / Quantity	Available Sub-Sector, Unavailable Sub-Sector
Biofuels	**Producers ; Engineering ; O&M ;** Equipment Manufacturing ; **Distribution and Blending**
Biomass & Waste	**Project Development ; Engineering ; O&M ; Equipment Manufacturing ; Feedstock Supply**
Geothermal	Project Development ; Engineering ; O&M ; Resource Development ; Turbines ; Balance of Plant
Small Hydro	**Project Development ; Engineering ; O&M ; Turbines ; Balance of Plant**
Solar	**Project Development ; Engineering ; O&M ;** Polysilicon/ingots ; Wafers ; Cells ; **Modules ; Inverters ; Balance of Plant**
Wind	**Project Development ; Engineering ; O&M ; Turbines ; Blades** ; Gearboxes ; **Towers ; Balance of Plant**

Source: Bloomberg New Energy Finance
Note: Uncolored icons, on the left, refer to each sub-sector of a complete value chain for a given sector, spelled out on the right. Colored icons represent the number of available subsectors for a given clean energy sector value chain. Bold text, on the right, illustrates at least one organization in that sub-sector is active in the country.

A carbon tax, which is expected to come into force in 2016, is perhaps one of the more controversial policies in the country due to the large financial implications for Eskom and the mining sector. Also planned are rules for net metering and small-scale embedded generation. While some municipalities have opened the distribution system or are running pilot projects, the national regulator and Eskom seem to be dragging their feet in implementing the mechanisms. A possible reason behind this would be the further loss of revenue for Eskom.