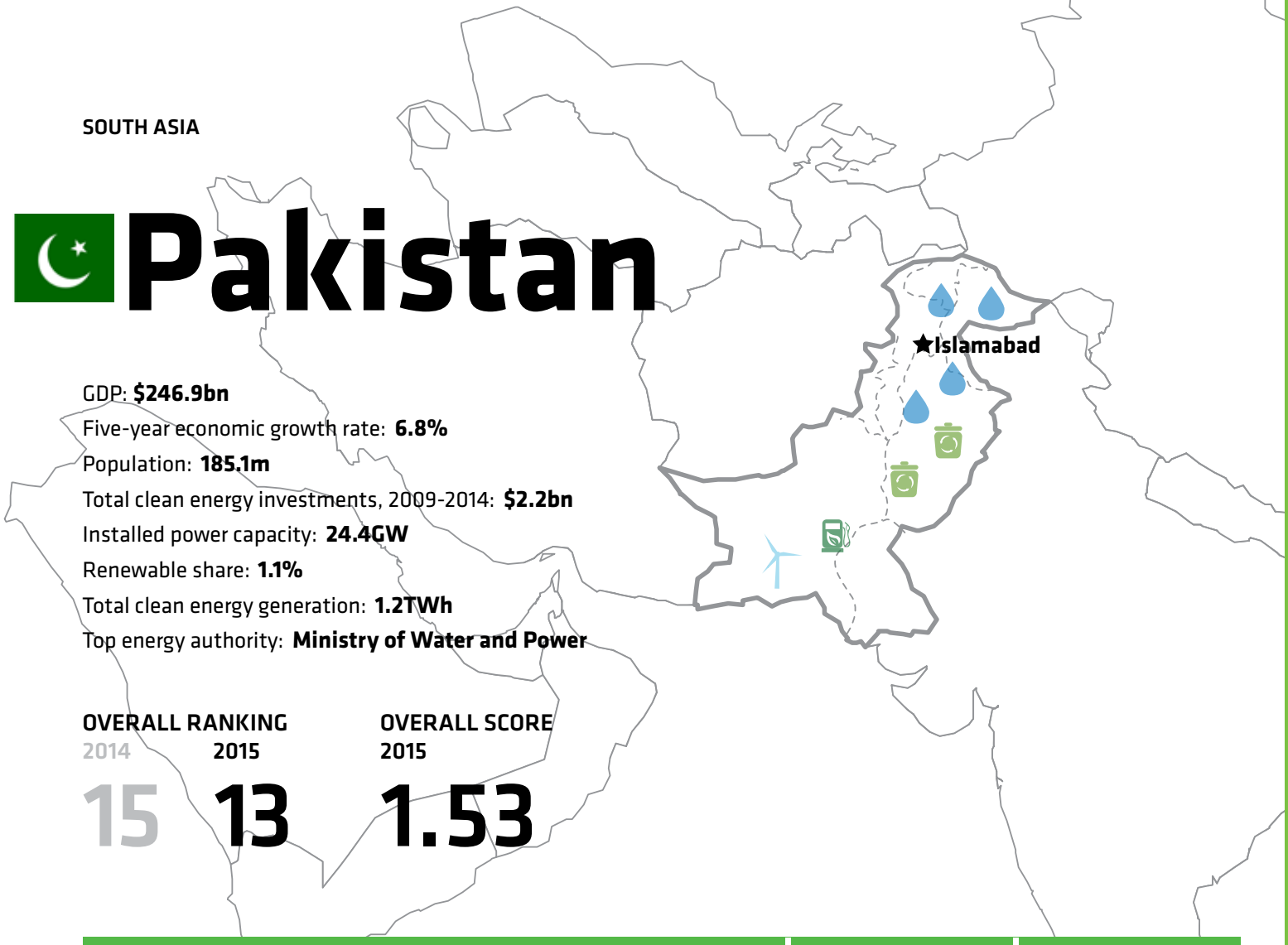
SOUTH ASIA

Pakistan



GDP: **$246.9bn**
Five-year economic growth rate: **6.8%**
Population: **185.1m**
Total clean energy investments, 2009-2014: **$2.2bn**
Installed power capacity: **24.4GW**
Renewable share: **1.1%**
Total clean energy generation: **1.2TWh**
Top energy authority: **Ministry of Water and Power**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
15	13	1.53

PARAMETER	RANKING	SCORE
I. Enabling Framework	16	1.42
II. Clean Energy Investment & Climate Financing	33	0.39
III. Low-Carbon Business & Clean Energy Value Chains	03	4.32
IV. Greenhouse Gas Management Activities	24	1.30

SCORE SUMMARY

Pakistan in 2015 scored 1.53 to finish 13th among all *Climatescope* nations. The country moved up two places from 2014 on the basis of improvements on parameters I and IV.

Pakistan ranked 16th on Parameter I Enabling Framework, with a score of 1.42. In 2014, it was 25th with a score of 1.21. The country approved direct electricity sales by private generation companies and net metering to encourage off-grid generation, particularly rooftop solar.

Pakistan's score on Parameter II Clean Energy Investment & Climate Financing slipped somewhat, from 0.45 to 0.39. Its latest investment total stood at $232m, a marginal decrease from the previous year.

On Parameter III Low-Carbon Business & Clean Energy Value Chains, Pakistan in 2015 posted a 4.32 score, which placed it third among Climatescope countries and was a one-place advance from 2014, when it scored 4.13. The country benefited from strong off-grid value chains, especially in distributed clean energy service providers and financial institutions.

Pakistan's 2015 rank improved 14 places on Parameter IV Greenhouse Gas Management, as its score jumped from 0.81 to 1.30. While it lacks a national carbon policy, Pakistan hosts a growing level of carbon offsets activity and environmental business training.

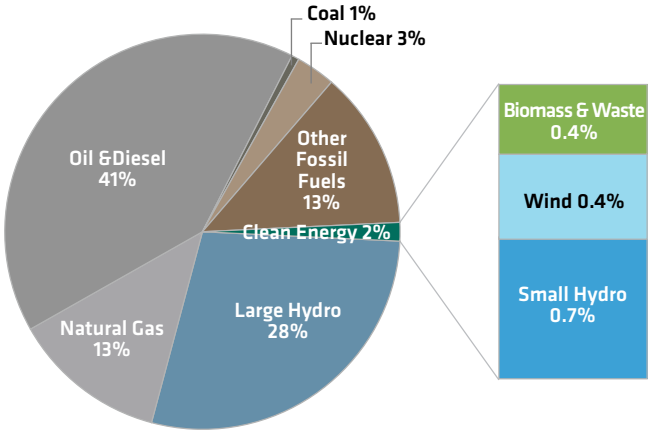
For further information, access www.global-climatescope.org/en/country/pakistan

OVERVIEW

Pakistan suffers from a lack of available power generation and renewable energy is being developed as a quick solution to alleviate power shortages. The country aims to close its power supply-demand gap by 2018 and achieve 5% of its total on-grid energy supply from renewables by 2030. Total installed power capacity stood at 24GW at year-end 2014, of which 1.8% was renewable energy (excluding large hydropower).

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

24.4GW total installed capacity



Source: Bloomberg New Energy Finance, National Electric Power Regulatory Authority, Alternative Energy Development Board, Oil & Gas Regulatory Authority, Pakistan State Oil, State of the Industry Report , Private Power and Infrastructure Board, Water and Power Development Authority, Pakistan Environmental Protection Agency

Various policy incentives have been introduced or are under way to encourage renewable energy development. The government offers a levelized feed-in tariff (FiT) of $0.13/kWh for up to 500MW of wind capacity. The solar FiTs are $0.14-0.15/KWh. As of January 2015, 150MW of wind capacity had been installed, while six solar projects totaling 47.5MW had been awarded the solar FiTs, with commissioning scheduled for end of 2015.

KEY POLICIES

Biofuel Blending Mandate	5% biodiesel blending (B-5) is targeted by 2015 and 10% biodiesel blending by 2025. These were enforced as of 2013.
Debt-Equity Incentives	Fixed interest loans for renewables - 7.5% for 2015. These IPPs are allowed to issue bonds, seek venture capital funding, and offer securities purchases to non-residents.
Energy Targets	5% of total commercial energy must come from renewables by 2030.
Feed-in-Tariffs	There is a FiT option for grid-connected wind, solar and hydro projects; these must be negotiated with National Electric Power Regulatory Authority.
Net Metering	The program is applicable to all distributed RE generation units (not just solar but also wind and others) under 1MW.
Tax Incentives	There is an income tax, customs duty and sales tax exemption, and Zakat exemption for non-Muslims and non-residents for renewable energy projects.

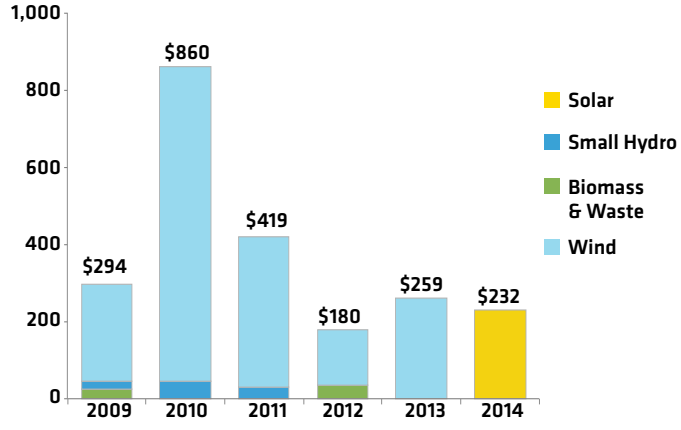
Source: Bloomberg New Energy Finance Policy Library

Direct electricity sales between private power producers and bulk end users were permitted in 2014, with wheeling charges for using the grid to transport the purchased electricity. This opens up opportunities for private developers to provide power solutions directly to consumers, who present lower default risk than utilities who have been struggling with high debt loads since 2010.

Pakistan's government approved a net metering regulation on 1 September 2015 which allows all domestic, commercial and industrial owners of distributed solar and wind generation under 1MW to sell surplus electricity to the grid. The payment for surplus electricity will be the same as the off-peak retail rate charged to the distributed system owners.

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

$2.2bn total cumulative investment



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

The country also offers fiscal and financial incentives to project developers. Renewable energy businesses are exempt from income tax, custom duty and sales tax. The State Bank of Pakistan directed commercial and development banks to provide project loans to renewable power plants of less than 10MW with fixed interest rates for up to 10 years.