



Pakistan

GDP: **\$236.6bn**Five-year economic growth rate: **7%**Population: **182.1m**Total clean energy investments, 2006-2013: **\$2.2bn**Installed power capacity: **25GW**Renewable share: **1.1%**Total clean energy generation: **322,344GWh**Top energy authority: **Ministry of Water and Power**OVERALL RANKING
2014**15**OVERALL SCORE
2014**1.36**

PARAMETER	RANKING	SCORE
I. Enabling Framework	25	1.21
II. Clean Energy Investment & Climate Financing	32	0.45
III. Low-Carbon Business & Clean Energy Value Chains	04	4.13
IV. Greenhouse Gas Management Activities	38	0.81

SUMMARY

Pakistan scored 1.36 to finish 15th among all *Climatescope* 2014 nations. Its best performance is on Low-Carbon Business parameter III, with best marks on financial institutions in clean energy and distributed clean energy value chains by sector.

Pakistan's 2013 GDP was \$302b. Its population of 183m still has large swathes without reliable electricity. The country received a total of \$249.52m in clean energy investment in 2013, out of a cumulative \$2.26bn from 2006 – 2013. Wind energy attracted more than 90% of total investment.

Pakistan relies mostly on large hydropower and thermal generation, which together were 86.1% of 107.4TWh of generation in 2013. It has a 2030 non-hydro clean energy target of at least 5% of total commercial energy supplies.

The National Electric Power Regulatory Authority (NEPRA) regulates electricity tariffs respective to each consumer group. Its Private Power Infrastructure Board has been promoting coal generation since 2012 in order to address the country's power shortfall. Pakistan has a wide distribution network, and a large thermal power IPP presence.

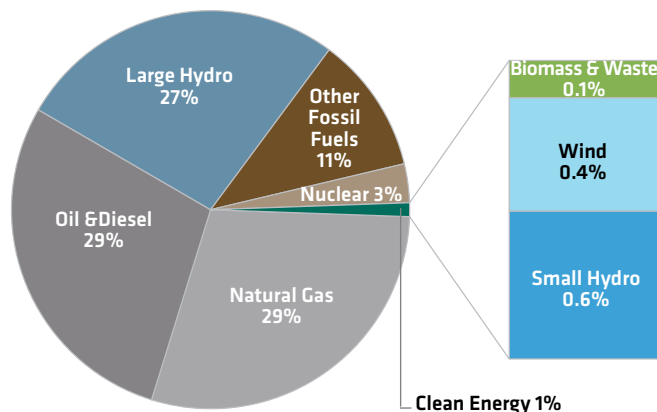
For further information, access www.global-climatescope.org/pakistan

PARAMETERS AT A GLANCE

In 2006, Pakistan's Ministry of Water & Power released the Policy for the Development of Renewable Energy for Power Generation, updated in 2011 to the Alternative and Renewable Energy Policy. NEPRA has determined feed-in tariffs for solar, hydropower and wind projects, which will be officially included in the policy revision due by mid-2015.

INSTALLED POWER CAPACITY BY SOURCE, 2013 (%)

25W total installed capacity



Source: Bloomberg New Energy Finance, National Electric Power Regulatory Authority, Alternative Energy

Natural gas, oil and diesel, and large hydropower are each more than 25% of capacity. Small hydropower contributed 434GWh of the annual electricity generation of 107.4TWh for 2013. With its new policies to attract investment in small hydropower, off-grid solar, and biomass and waste, Pakistan has scored fairly well on Enabling Framework Parameter I.

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	Off-grid small hydro projects of IPPs receive capital subsidies. 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	Residential consumers with solar PV home systems of up to 1MW will be paid for surplus grid-connected electricity.
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.

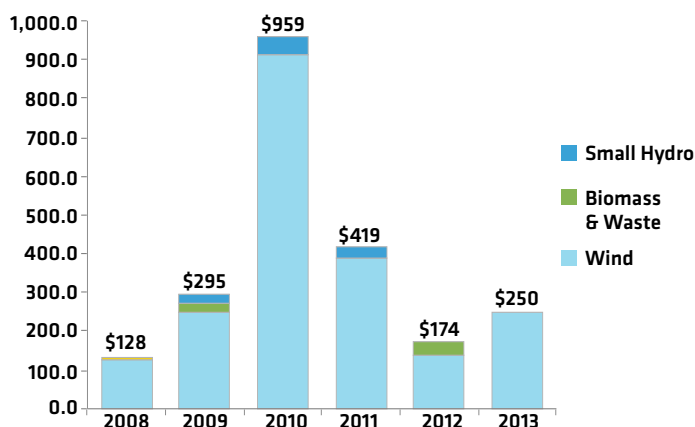
Source: Bloomberg New Energy Finance Policy Library

Pakistan scored relatively poorly on Clean Energy Investment Parameter II. Despite its excellent wind resources, the country attracted just \$249.5m in clean energy investment from 2006-2013.

Pakistan's strong off-grid value chains give it a relatively high score in Low Carbon Business Parameter III as an off-grid nation. It also has various clean energy service providers, predominantly in financial institutions and ancillary products and services. However, it still needs to establish insurance providers for urban and rural clean energy applications.

ANNUAL INVESTMENT IN CLEAN ENERGY, 2008-2013 (\$m)

\$2224.4 total cumulative investment



Source: Bloomberg New Energy Finance

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

Pakistan did not score highly on Greenhouse Gas Management Parameter IV, in particular for its lack of a carbon policy. However, Pakistan does have a think tank encompassing renewable energy, and a government body to help facilitate the respective project design document for CDM projects.