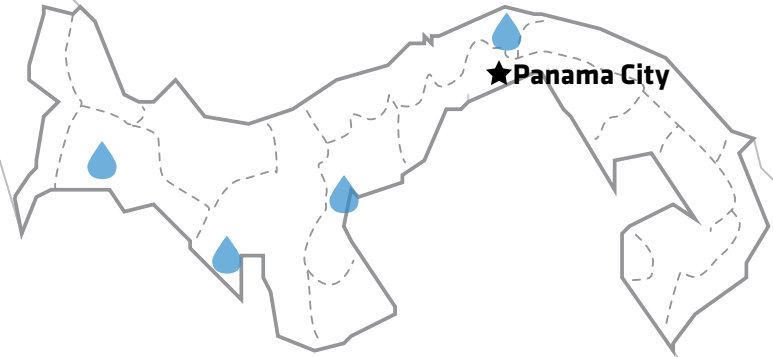


CENTRAL AMERICA

Panama

GDP: **\$42.6bn**
 Five-year economic growth rate: **10%**
 Population: **3.9m**
 Total clean energy investments, 2006-2013: **\$1.3bn**
 Installed power capacity: **2GW**
 Renewable share: **8%**
 Total clean energy generation: **685GWh**
 Top energy authority: **National Secretariat of Energy**



OVERALL RANKING
2014

28

OVERALL SCORE
2014

1.11

PARAMETER	RANKING	SCORE
I. Enabling Framework	11	1.39
II. Clean Energy Investment & Climate Financing	11	0.89
III. Low-Carbon Business & Clean Energy Value Chains	40	1.02
IV. Greenhouse Gas Management Activities	33	0.91

SUMMARY

Panama finished 28th among Climatescope nations for 2014 with a score of 1.11. Compared solely to Latin American countries, it ranked 13th.

Panama is one of the fastest growing economies in the region, posting an average 8% GDP annual growth rate over the past five years. Electricity demand has grown accordingly and the need for new, non-hydro sources of generation has become more apparent in light of a serious drought in 2013.

Small hydro remains the country's flagship clean energy sector with 195MW of installed capacity. The technology also account-

ed for 87% of the \$1.2bn total invested in clean energy since 2006. Panama now has a strong pipeline of wind projects under development. Once online, these should significantly boost clean energy's share of the power generation matrix.

Panama uses tenders to contract renewable capacity and in 2011 and 2013 held two such reverse auctions for wind power contracts. Its first solar-specific tender is expected in 2014. Renewables are likely to face significant competition from natural gas in Panama as the country also has plans to add 1GW of new gas capacity by 2026 as well.

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

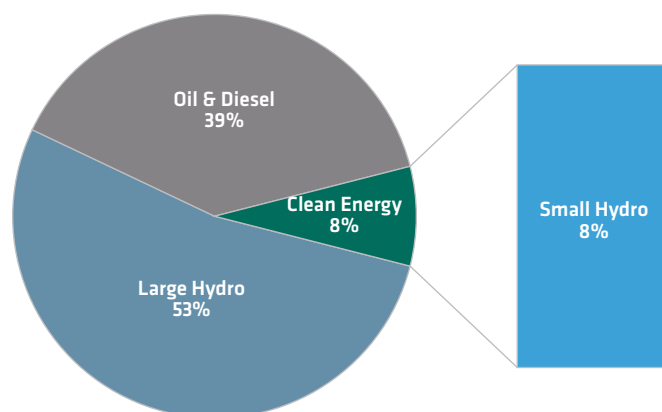
PARAMETERS AT A GLANCE

Hydro power resources account for 61% of Panama's 2.5GW installed capacity. Of this, 8% comes from small (below 50MW) hydro plants.

A drought in 2013 affected Panama, resulting in power generation constraints. In response, the government adopted energy saving measures to avoid a large-scale blackout. Panama also made use of the Central American regional market (MER) to guarantee sufficient supply. It now plans to extend transmission interconnection to Colombia to increase power exchange opportunities further.

INSTALLED POWER CAPACITY BY SOURCE, 2013 (%)

2GW total installed capacity



Source: Bloomberg New Energy Finance, Autoridad Nacional de los Servicios Públicos

Panamanian residential consumers pay high retail electricity prices, at an average of \$0.22/kWh. High-consumption users should see prices rise over the next year as the government scales back subsidies to account for increased generation costs.

KEY POLICIES

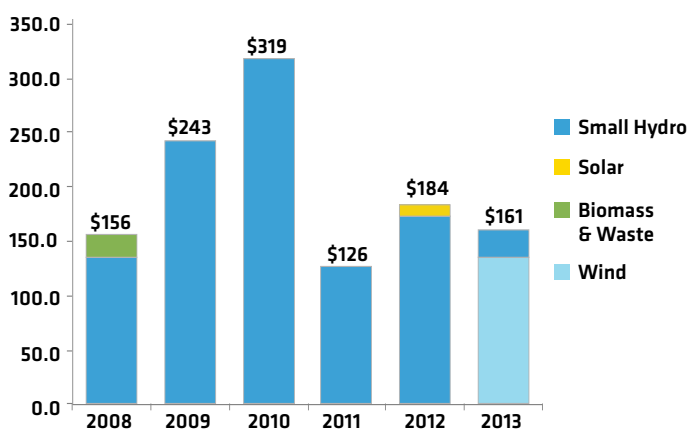
Feed-in Tariff	a 5% price premium is given to renewable projects up to 3MW that sell electricity to La Empresa de Transmisión Eléctrica (ETESA).
Auction	ETESA held two reverse auctions for wind, contracting eight plants with a total capacity of 283MW.
Biofuels	Mandatory blending of ethanol with gasoline from 2013, up to a maximum of 10% by 2016.
Tax Incentives	Import duty exemption for clean energy equipment; income tax credit and transmission and distribution tax exemption for generators.

Source: Bloomberg New Energy Finance Policy Library

Panama ranked 11th on *Climatescope's* Parameters I and II, examining the country's enabling framework and clean energy investment levels, respectively. On Climatescope's assessment of Panama's power sector, it was considered open to private sector participation, while offering several policy incentives to new clean energy capacity.

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

\$1.3bn total cumulative investment



Source: Bloomberg New Energy Finance

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

A total of 258MW of wind capacity is expected online in the next few years and this should ease the country's reliance on hydro and thermal generation. This new potential capacity was contracted through wind auctions held in 2011 and 2013. Additionally, Panama will hold a tender for solar power delivery contracts this year with an eye toward delivery by 2017. In 2013, the country attracted \$161m in financing for wind and small hydro plants.

Panama's clean energy value chain, mostly consists of developers and engineering firms. As a result, it ranks 40th on Parameter III, scoring 1.02. Also, it does not have significant greenhouse gas management initiatives, explaining its 33rd position on Parameter IV, with a 0.91 score.