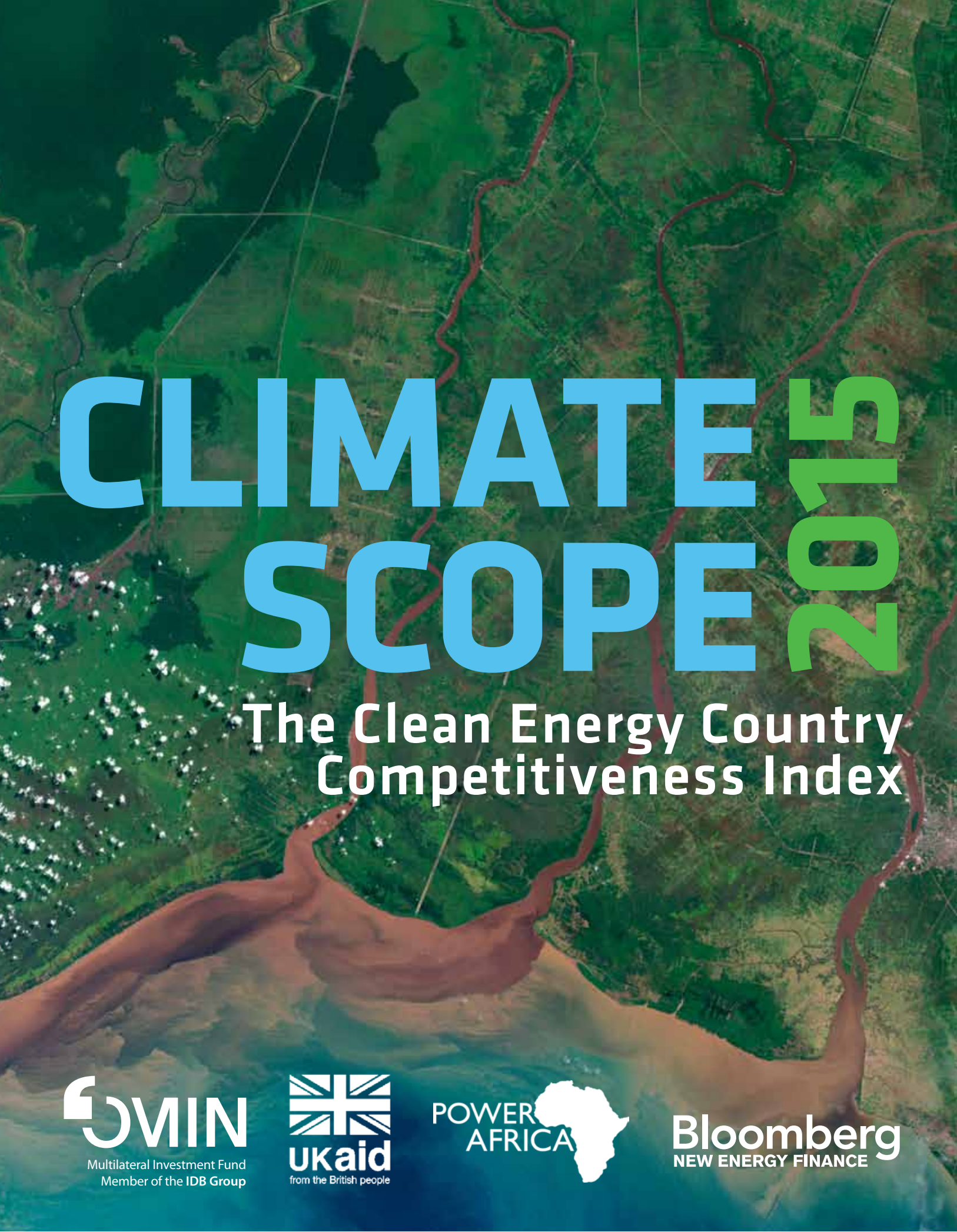
CLIMATE SCOPE 2015
The Clean Energy Country Competitiveness Index
MIN
Multilateral Investment Fund
Member of the IDB Group
UKaid
from the British people
POWER AFRICA
Bloomberg
NEW ENERGY FINANCE

THE MULTILATERAL INVESTMENT FUND

The Multilateral Investment Fund (MIF), a member of the Inter-American Development Bank (IDB) Group, is funded by 39 donors and supports private sector-led development benefitting low-income populations and the poor - their businesses, their farms, and their households. The aim is to give them the tools to boost their incomes: access to markets and the skills to compete in those markets, access to finance, and access to basic services, including green technology. A core MIF mission is to act as a development laboratory - experimenting, pioneering, and taking risks in order to build and support successful micro and SME business models.
More information at www.fomin.org.

UK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT

The Department for International Development (DFID) leads the UK government's work to end extreme poverty. A ministerial Department, its overall aim is to reduce poverty in poorer countries, in particular through achieving the Millennium Development Goals (MDGs). DFID works directly in 28 priority countries across Africa, Asia and the Middle East, and has regional programmes in Africa, Asia, the Middle East and North Africa, and the Caribbean, as well as development relationships with 3 Overseas Territories – St Helena, the Pitcairn Islands and Montserrat. www.dfid.gov.uk

POWER AFRICA

President Obama's Power Africa initiative works with African governments, the private sector, and other partners such as the World Bank and African Development Bank to add more than 30,000 megawatts of cleaner, more efficient electricity generation capacity in sub-Saharan Africa. By expanding mini-grid and offgrid solutions and building out power generation, transmission, and distribution structures, Power Africa will also increase electricity access by adding more than 60 million new household and business connections. The Power Africa model is part of President Obama's new approach to development, which builds local capacity and supports innovative ways to make traditional assistance programs more effective and sustainable. The initiative represents the combined efforts of 12 U.S. Government agencies.

BLOOMBERG NEW ENERGY FINANCE

Bloomberg New Energy Finance (BNEF) provides unique analysis, tools and data for decision makers driving change in the energy system. BNEF has 200 staff based in 14 offices around the world. BNEF's sectoral products provide financial, economic and policy analysis, as well as news and the world's most comprehensive database of assets, investments, companies and equipment in the clean energy space. BNEF's regional products provide a comprehensive view on the transformation of the energy system by region. For more information on Bloomberg New Energy Finance: http://about.bnef.com, or contact us at sales.bnef@bloomberg.net for more information on our services.

Cover: Kalimantan, the Indonesian portion of Borneo, was once a lush tropical landscape full of some of the most sought-after timber in the world. In recent years, a combination of logging and agriculture has contributed to a rapidly changing landscape.

CLIMATESCOPE 2015

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

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Photography: NASA's Earth Observatory

CLIMATESCOPE 2015 COUNTRIES

Climatescope surveyed and analyzed 55 important developing world nations in Africa, Asia and Latin America and the Caribbean to evaluate their ability and potential to attract capital for low-carbon energy sources and measure what has been achieved to date. The report focused particularly on India and China where 10 states and 15 provinces were examined in greater detail.

AFRICA

- Botswana
- Cameroon
- Cote d'Ivoire
- Democratic Republic of Congo
- Ethiopia
- Ghana
- Kenya
- Liberia
- Malawi
- Mozambique
- Nigeria
- Rwanda
- Senegal
- Sierra Leone
- South Africa
- Tanzania
- Uganda
- Zambia
- Zimbabwe

ASIA

- Bangladesh
- China
  - Fujian
  - Gansu
  - Guangdong
  - Hebei
  - Heilongjiang
  - Hubei
  - Inner Mongolia
  - Jiangsu
  - Jilin
  - Qinghai
  - Shandong
  - Sichuan
  - Tibet
  - Xinjiang
  - Yunnan
- India
  - Andhra Pradesh
  - Gujarat
  - Karnataka
  - Madhya Pradesh
  - Maharashtra
  - Punjab
  - Rajasthan
  - Tamil Nadu
  - Uttar Pradesh
  - West Bengal
- Indonesia
- Myanmar
- Nepal
- Pakistan
- Sri Lanka
- Tajikistan
- Vietnam

LATIN AMERICA & THE CARIBBEAN

- Argentina
- Bahamas
- Barbados
- Belize
- Bolivia
- Brazil
- Chile
- Colombia
- Costa Rica
- Dominican Republic
- Ecuador
- El Salvador
- Guatemala
- Guyana
- Haiti
- Honduras
- Jamaica
- Mexico
- Nicaragua
- Panama
- Paraguay
- Peru
- Suriname
- Trinidad & Tobago
- Uruguay
- Venezuela

EXECUTIVE SUMMARY

In its first year, the inaugural global *Climatescope* chronicled the rapid proliferation of clean energy in 55 emerging market nations over the previous five years. What drove this surge was: national pursuits for energy security, dramatically falling costs for renewable technologies, improving clean energy policy frameworks, and generally strong macroeconomic growth.

This second edition of the global survey documents important continued progress during the 2014 calendar year across these nations, which can be regarded as a proxy for emerging market countries more broadly. Once again, *Climatescope* focused its attention on the newest low-carbon emitting clean energy technologies – wind, solar, geothermal, biomass, small hydro and biofuel technologies, but not large hydro and nuclear power[1].

KEY FINDINGS

On critical metrics measuring clean energy investment, policy development, and the addition of new clean energy power generating capacity, 2014 was a success across Climatescope nations collectively. Indeed, the year brought further proof that the clean energy center of gravity is shifting inexorably from "north" to "south", from developed to developing countries. Along those lines, several important milestones were achieved in 2014. Most notably:

- New investment in renewable power generation in 2014 soared in the 55 countries to hit a record annual high of $126bn – up $35.5bn, or 39%, from 2013 levels. For the first time, over half of all new annual investment into clean energy power generating projects globally went toward projects in emerging markets. Meanwhile, "South-South" investment (capital deployed in *Climatescope* nations from in-country sources) surged to $79bn in 2014 from $53bn the year prior.

- A total of 50.4 gigawatts (GW) of new clean capacity was built in Climatescope countries, roughly enough to provide power to 9m US homes, marking a 21% uptick from the prior year. In another first, clean energy capacity deployed in emerging markets topped that in wealthier Organization for Economic Co-operation and Development (OECD) nations. Moreover, on a percentage basis, clean energy capacity is growing twice as quickly in *Climatescope* nations compared to OECD ones.

- While China continues to play a major part of the clean energy story globally, considerable opportunities exist elsewhere in emerging markets. The other 54 *Climatescope* nations added 15.5GW of clean capacity in 2014, up 64% from the prior year's 9.4GW. Clean energy growth in these countries was double that seen in OECD countries as measured on a percentage basis.

- *Climatescope* countries continued to make important progress on their clean energy policy frameworks, with particularly notable developments in China, India and Mexico, but also in smaller nations such as Chile, Honduras, Tanzania and Uganda. In all, 76 new clean energy-friendly policies went into effect in 2014[2].

- Markets are becoming more liberalized and open to private sector participation. The average *Climatescope* power sector score was 2.10 out of a maximum of 5, compared to a score of 1.86 last year. Countries such as Mexico and Honduras went through significant market restructurings to improve system efficiency and attract private players and investment, while that process was initiated in others like Tanzania.

- China added 35GW of new renewable power generating capacity all on its own – more than all capacity online today in sub-Saharan Africa's 49 nations combined, excluding South Africa and Nigeria – and attracted $89bn in all types of new clean energy capital.

- An estimated 1.3bn people continue to lack energy access but clean energy is playing a growing role in addressing that challenge. Tanzania led the countries making strides in facilitating the development of small-scale renewables or mini-grids, with Bangladesh, Kenya, Nepal and Uganda also performing well. In 2015, Haiti's first mini grid started operation, paving the way for new strategies to increase electrification in the country.

1. *Climatescope* counts many energy technologies in its definition of "renewables" and "clean energy" but does not take into account large hydro projects (those greater than 30 megawatts in size). The study focuses exclusively on newer sources of low-carbon generation, both because they are often technologically cutting edge and because they can generally be deployed far faster than large hydro projects, which can take years or even decades to commission. These technologies are poised to make an immediate impact on energy supply and access in the developing world. Climatescope seeks to assess how ready these countries are to embrace them.

2015 Global Climascope scores

Overall ranking top 30

Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

• At a smaller scale, companies selling pico-solar products in places with low or non-existent electrification are rapidly growing. To date, they have raised at least $250m and seek further investment to grow in these new markets. A new segment of "pay-as-you-go" providers are scaling the services that off-grid solar can provide to include appliances – with some already offering televisions and refrigerators to off-grid customers.

• Solar energy became more cost-competitive in emerging markets in 2014. While power prices paid by businesses and consumers remained stubbornly high in many of the 55 *Climatescope* nations, costs associated with solar energy ticked down by as much as 10-15% year-on-year, depending on the region and technology. Wind prices have stayed roughly level, but the technology is already price competitive in many emerging markets.

• With a critical round of the UN-sponsored climate negotiations to kick off in Paris in late November 2015, *Climatescope* recorded 28 countries with declared greenhouse gas emissions reduction targets.

What makes 2014's progress all the more notable is that it was achieved as a number of countries saw economic growth begin to cool. Average gross domestic product growth across *Climatescope* nations slipped to 5.7% in 2014 from 6.4% in 2013 and the slow-down was most acute in several of the largest nations in the survey. Brazil's GDP growth slid from 2.7% in 2013 to 0.1% in 2014. South Africa's slipped from 1.9% to 1.5%. Meanwhile, China's fell from 7.4% to 7.1%, according to its official government statistics.

How did clean energy manage to grow at such a rapid pace in 2014 even as economic conditions were deteriorating in many Climatescope countries? In a number of the nations, the economic deceleration did not actually begin until the second half of 2014. Thus any potential negative impact on clean energy build for full year 2014 may have been muted as many projects that began construction earlier in the first half of 2014, or even in 2013 or earlier, came to completion in the second half of 2014. This, of course, raises the possibility that the impact of downturn the pullback may be felt in 2015 or later.

A second, somewhat more optimistic view is that clean energy development is simply becoming more permanently accepted common practice in terms of how these countries operate and develop.

Since the start of 2015, economic conditions in Brazil, China, South Africa, and other key *Climatescope* markets have become more challenging. Time will tell if these new, more difficult times will put a crimp on further growth for clean energy – or if renewables remain resilient in the face of these new headwinds. Slower economic growth typically means slower electricity demand growth. As renewables often represent the newest capacity to get added, this weakening load growth could mean slower clean energy growth.

Calendar year 2014 saw one other macro energy trend that could have impacted clean energy's development: lower oil prices. The benchmark price for Brent crude fell from $110 to $57/barrel. Clean energy as a power generation source regularly competes against incumbent generation powered by the burning of oil-based fuels. At the utility scale, this can mean plants that burn bunker oil. At the village level, it often means kerosene generators.

There was little to suggest that clean energy deployment or investment suffered in 2014 due to the oil price collapse, however. Once again, it could be a case where it will take a bit of time for the effects of cheaper oil to be felt. Indeed, *Climatescope* tracked little change in wholesale power prices across the 55 countries in 2014. Time will tell if that has changed in 2015.

On a more localized basis, however, it is far from clear that a lower global price for crude will translate into cheaper kerosene

2. Sub-Saharan Africa's total power generating capacity amounted to around 87GW in 2014, of which South Africa accounts for 45GW and Nigeria 11GW.

for villages and homes. There are substantial fixed costs associated with delivering the fuel to far-flung locations and these are unlikely to be substantially impacted.

COUNTRY RESULTS

Climatescope seeks to bring quantitative rigor to complex questions. At its core is a data-driven model that takes into account 53 distinct inputs or "indicators" to produce overall scores for individual nations on a zero-to-five basis. Countries are then ranked to highlight those most attractive for clean energy investment and capacity build-out.

As measured on a composite score basis, this year's *Climatescope* tracked incremental progress among the 55 nations. The average score achieved by all nations ticked up, to 1.14 from 1.11 in last year's survey. While 27 nations saw their overall scores improve year-on-year, 28 saw theirs decline.

Among the best scorers, there was consistency from last year's *Climatescope* with the same nations finishing in the top five, but in a slightly different order. Once again, China scored highest overall with 2.29. Brazil again was second on the list, but did see its score dip slightly. Chile, South Africa, and India rounded out the top five.

On a regional basis, the 10 Asian nations achieved the highest overall average score of 1.40 and were clearly boosted by China's high score as well as India's strong performance. The 26 nations in Latin America and the Caribbean achieved an average score of 1.09 while those in Africa scored 1.06.

Overall, *Climatescope* mapped important progress in the areas of investment, capacity deployment, and policy development. Still, as the country scores suggest, much work remains to improve conditions under which clean energy can thrive.

TOP 5 CLIMATESCOPE SCORERS

RANK	COUNTRY	2015 SCORE	2014 SCORE	COMMENT
1	China	2.29	2.23	Surging investment and new capacity build keep China top of the list
2	Brazil	2.12	2.17	Continued clean energy growth, despite a cooling economy and diminished credit availability
3	Chile	1.97	1.79	Latin America's solar leader with 12% of all 2014 generation from renewables
4	South Africa	1.91	1.92	Continued growth in capacity and investment thanks to power contract tenders
5	India	1.81	1.85	New policy ambitions from the Modi government signal clean energy opportunities ahead

Source: Bloomberg New Energy Finance

PARAMETERS SUMMARY

An astronaut aboard the International Space Station took this photograph of the strange rounded shapes along the coastline of Zambia's Chilubi Island. The light-toned sand island stands out from the dark waters of Lake Bangweulu.

PARAMETER OVERVIEW

Climatescope's primary goal is to present the public with an almanac of clean energy investment and deployment facts on 55 of the world's most important developing nations, along with 25 Indian states and Chinese provinces. To that end, it takes into account four over-riding parameters, 54 data indicators, and 199 sub-indicators. In all, over 15,000 individual pieces of data were collected over a six-month period that included in-person visits to three quarters of the countries, states and provinces by the Bloomberg New Energy Finance team.

It is the authors' hope this that this collection of potentially useful data be put to good use by investors, project developers, equipment makers, academics, policy-makers and others and that www.global-climatescope.org becomes an essential tool for conducting meaningful research.

These data also allow us to draw larger conclusions about activities in these nations and emerging markets more broadly, given that the *Climatescope* countries represent such a large percentage of non-OECD nations overall. Here, we examine some of the higher level trends we see in this year's *Climatescope*.

A clear shift from north to south

2014 brought further proof that clean energy activity is shifting inexorably from "north" to "south", from developed to developing countries. Along those lines, several important milestones were cleared in 2014.

New investment in renewable power generation in 2014 increased significantly in the 55 countries to hit a record annual high of $126bn – up $35.5bn, or 39%, from 2013 levels. For the first time, over half of all new annual investment into clean energy power generating projects globally went toward projects in emerging markets.

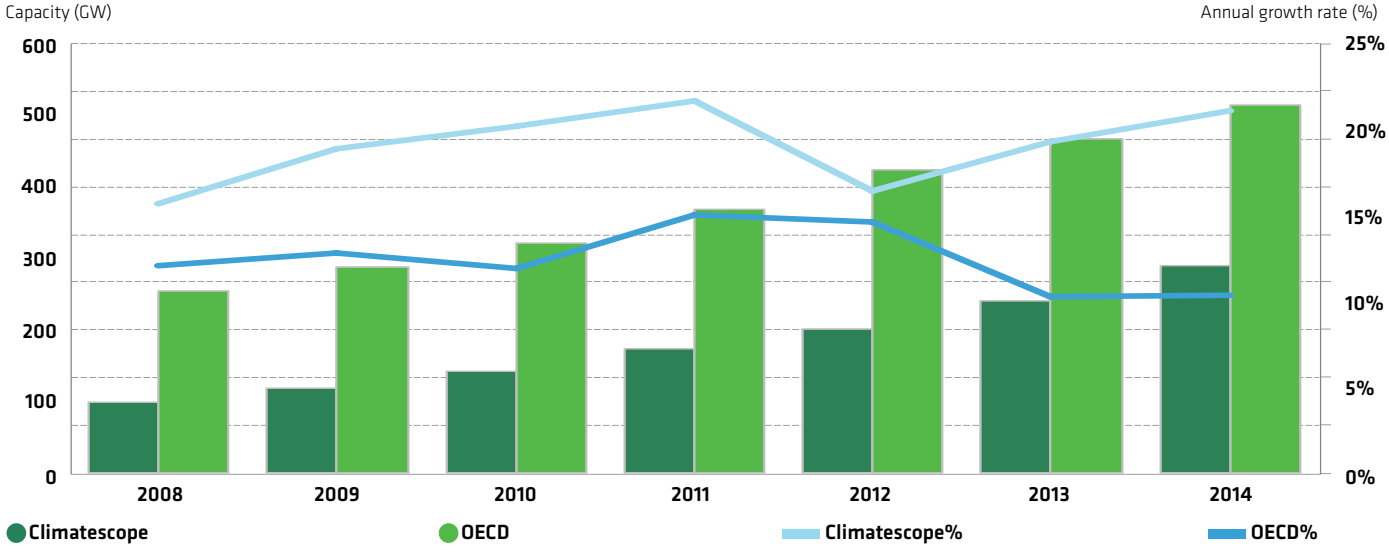
This significant flow of new capital is worth noting within the context of the UN-sponsored climate negotiations scheduled for December 2015 in Paris. Among other topics expected to be on the table at that critical conference: the potential for wealthier nations to invest more in lesser developed countries to help the latter mitigate and adapt to the effects of climate change.

The figure most commonly discussed on the international stage is $100bn to flow annually from north to south. The *Climatescope* data suggest that more total capital than that moved into clean energy projects alone in these countries in 2014. (*Climatescope* does not seek to quantify investment in other forms of sustainable infrastructure in emerging markets.)

It is notable that the majority of the $126bn invested in *Climatescope* countries did not emanate from OECD countries. Rather, it was south-south investment within the 55 nations that accounted for $79bn of the total, with the balance ($47bn) represented by north-south flows.

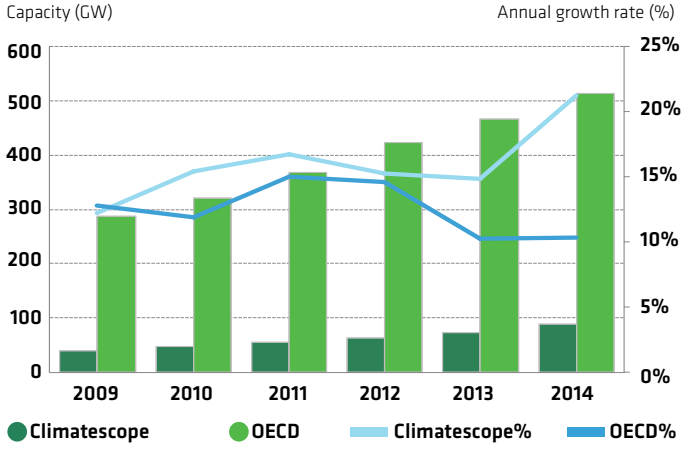
The shift toward emerging economies can also be seen in terms of where clean energy power generating capacity is being built. A total of 50.4 gigawatts (GW) of new clean capacity was commissioned in *Climatescope* countries, marking a 21% uptick from the prior year. For the first time, annual clean energy capacity deployed in emerging markets topped that in wealthier OECD nations. Moreover, on a percentage basis, clean energy capacity is growing twice as quickly in *Climatescope* nations compared to in the OECD.

Non-large hydro clean energy cumulative capacity (GW) and annual growth rate (%) in Climatescope countries vs OECD nations, 2008 - 2014



Source: Bloomberg New Energy Finance

Total cumulative power generating capacity (GW) and annual growth rate (%) in Climatescope countries vs OECD nations, 2009 - 2014



Source: Bloomberg New Energy Finance

Large hydro continues to play a vital role in supplying power in emerging and developing economies, particularly in Latin America and China. *Climatescope* does not include large hydro projects in its accounting for clean energy as the goal is to focus on technologies that can be deployed more rapidly and have near immediate impact.

When large hydro is included in the overall figures, however, *Climatescope* nations have nearly as much clean generation capacity on line as OECD countries: 777GW compared to 790GW as of year-end 2014. Again, the rate of growth of low carbon energy (inclusive of large hydro) is twice as fast in *Climatescope* countries as in the OECD. When other non-OECD countries (not included in *Climatescope*) are also included, total clean energy capacity including large hydro in these emerging and developing nations exceeds that in OECD countries.

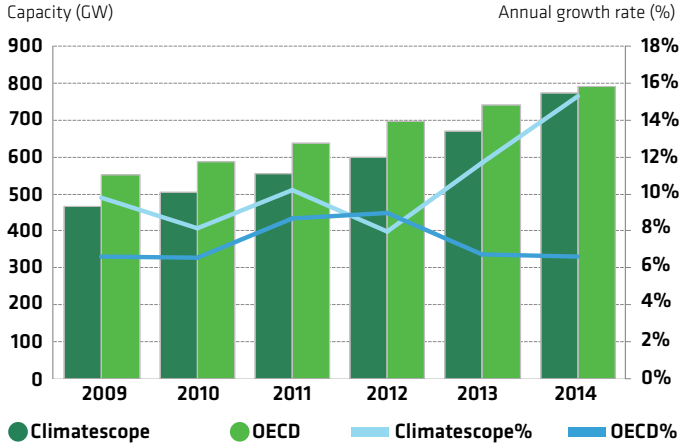
The importance of China

China continues to play a critical role in clean energy's evolution, not just in emerging markets but in all countries. The nation added 35GW of new renewable power generating capacity all on its own – more than all capacity online today in sub-Saharan Africa's 49 nations combined, excluding South Africa and Nigeria[1] – and attracted $89bn in all types of new clean energy capital.

Subtracting out China's impact, however, *Climatescope's* other 54 nations achieved important progress in 2014. On a percentage basis, the growth rate for cumulative clean energy installed in these countries spiked to 21.2%, again more than twice the rate of growth seen in OECD countries. In all, the non-China *Climatescope* nations added 15.5GW of new capacity in 2014 compared to 9.4GW installed the year prior – a 64% jump.

China now appears on track for another very strong year in 2015. Through the first six months of the year, it had deployed an additional 20GW. However, today a considerable amount of clean power produced in China never reaches its destination due to transmission constraints. Through the first half of 2015, 9.5% of all Chinese output from solar projects was "curtailed" due to such bottlenecks. Officials are seeking to address this through new "green dispatch" rules that mandate that clean energy generated gets used by end consumers, but considerable work remains to nationalize this policy.

Clean energy (including large hydro) cumulative capacity (GW) and annual growth rate (%) in Climatescope countries vs OECD nations, 2009 - 2014



Source: Bloomberg New Energy Finance

Cost competitiveness for renewables

An estimated 1.3bn people lack acceptable access to energy worldwide. Among some in the development community, the debate over renewables' ability to address this challenge continues; critics insist only fossil sources of generation are inexpensive enough to be cost-competitive in such a context.

The first global edition of *Climatescope*, released in 2014, illustrated how exorbitantly high electricity prices for businesses and consumers in these nations make renewable generation there more cost competitive. This year's study not only confirmed this but suggested renewables are making further progress.

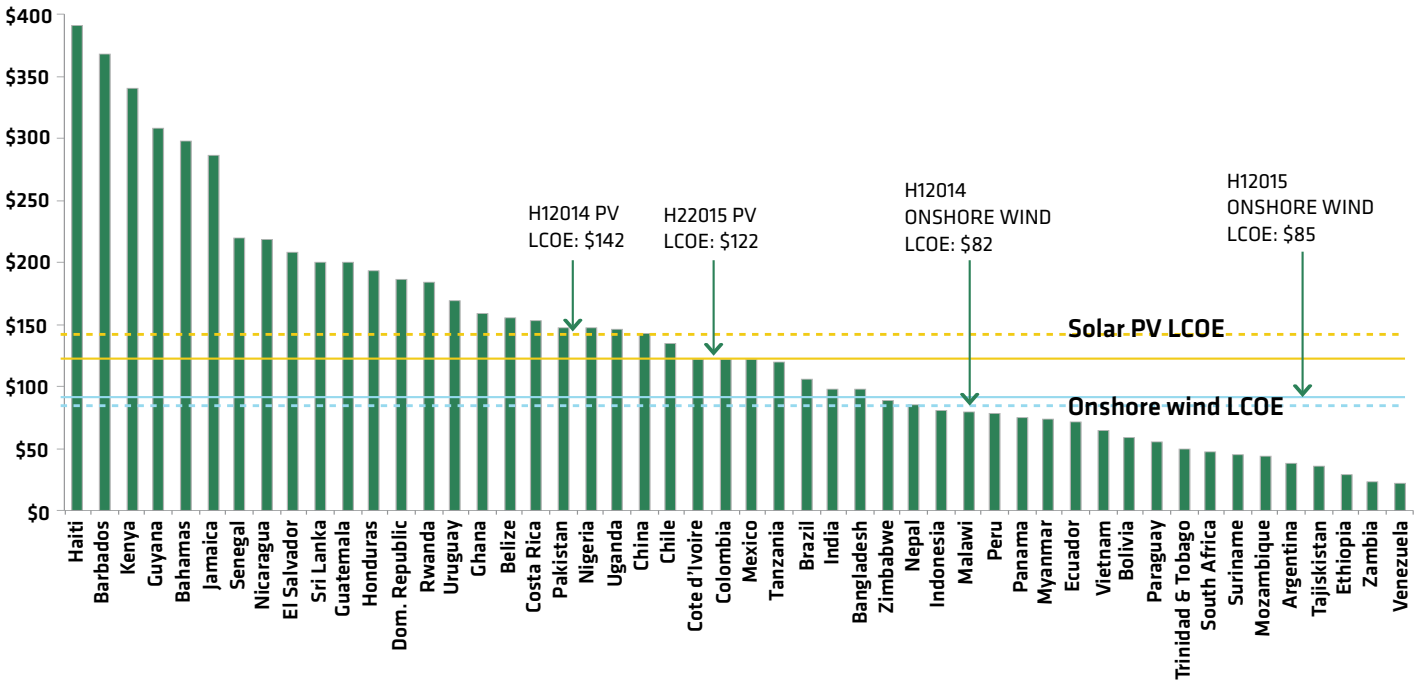
Industrial power prices remained stubbornly high in many of the 55 *Climatescope* nations in 2014 even as the "levelized cost of electricity" as calculated by Bloomberg New Energy Finance ticked down 15% year-on-year.[2] Wind prices have stayed roughly level, but the technology is already price competitive in many emerging markets.

Looking ahead, there is an open question about whether renewables can continue to achieve such progress on costs. The

1. Sub-Saharan Africa's total power generating capacity amounted to around 87GW in 2014, of which South Africa accounts for 45GW and Nigeria 11GW.

2. BNEF H2 2015 central case PV LCOE compared to the H2 2014 one. The central case assumes a 17% DC capacity factor, 10% cost of equity, 2% inflation rate, taxes at 35% and straight line depreciation, with global benchmark capex and opex inputs.

Industrial power prices vs levelized cost of electricity for onshore wind and solar, 2014/2015 ($/MWh)



Source: Bloomberg New Energy Finance

last quarter of 2014 saw a precipitous drop in crude oil prices. While the impact of that decline on power prices was not evident in the annual average figures collected by Bloomberg New Energy Finance, oil has continued to trade in a lower band in 2015. A number of *Climatescope* nations, particularly those in the Caribbean and parts of Africa, are disproportionately reliant on diesel and heavy oil power generation. If lower oil prices produce lower electricity prices, renewables could be impacted.

Clean energy growth despite macroeconomic wind shifts

What makes the progress achieved in 2014 all the more notable is that it took place as a number of countries saw economic growth begin to cool. Average gross domestic product growth across *Climatescope* nations slipped to 5.7% in 2014 from 6.4% in 2013 and the slow-down was most acute in several of the largest nations in the survey. Brazil's GDP growth slid from 2.8% in 2013 to just 0.1% in 2014. South Africa's slipped from 2.2% to 1.5%. Meanwhile, China's fell from 7.4% to 7.1%, according to its official government statistics.

What might explain this contrast between exceptional clean energy growth and somewhat less exceptional macroeconomic growth? First, there is potential issue of timing. In a number of countries, the economic deceleration began toward the second half of 2014. Thus any potential negative impact on clean energy build may have been muted. Instead, the downturn may be felt later. A second, somewhat more optimistic view is that clean energy development is simply becoming a fundamental part of how these countries develop and add new capacity to meet local power demand.

Since the turn of the year into 2015, the economic outlook for Brazil, China, South Africa, and other key Climatescope markets has become even more negative. Time will tell if these new, more challenging conditions will put a crimp on further growth for clean energy – or if renewables remain resilient in the face of these new headwinds.

THE CLIMATESCOPE SCORES

As in the first global *Climatescope* released a year ago, this year's country-level results portray nations rapidly advancing along the path toward embracing clean energy development – but with considerable distance yet to travel. The survey scored nations, Chinese provinces and Indian states on a 0-5 basis, taking into account 54 underlying indicators. This year, the average score across all countries came to 1.14. While this certainly represents progress compared to last year's average score of 1.11, it is again indicative of how much additional work remains to be done. While 27 nations saw their overall scores improve year-on-year, 28 saw theirs decline.

Among the best scorers, there was consistency from last year's *Climatescope* with the same nations finishing in the top five, but in a slightly different order. Once again, China scored highest overall with 2.29. Brazil again was second on the list, but did see its score dip slightly. Chile, South Africa, and India rounded out the top five.

On a regional basis, the 10 Asian nations achieved the highest overall average score of 1.40 and were clearly boosted by China's high score as well as India's strong performance. The 26 nations in Latin America and the Caribbean achieved an average score of 1.09 while those in Africa scored 1.06.
As discussed above, China saw another record-shattering year in terms of both investment and deployment and for the second year received the highest overall *Climatescope* score, at 2.29. The country was the top scorer on two parameters and finished no lower than eighth on any.

As discussed above, China saw another unprecedented year in terms of both investment and deployment and for the second year received the highest overall Climatescope score, at 2.29. The country was the top scorer on two parameters and finished no lower than eighth on any.

Repeating its performance from last year's *Climatescope*, Brazil landed 2nd on the list but saw its overall score slip to 2.12 from 2.17. The country's lower showing was primarily due a sharp drop in its score on Enabling Framework Parameter I. This was partly due to slowing economic growth in the country.

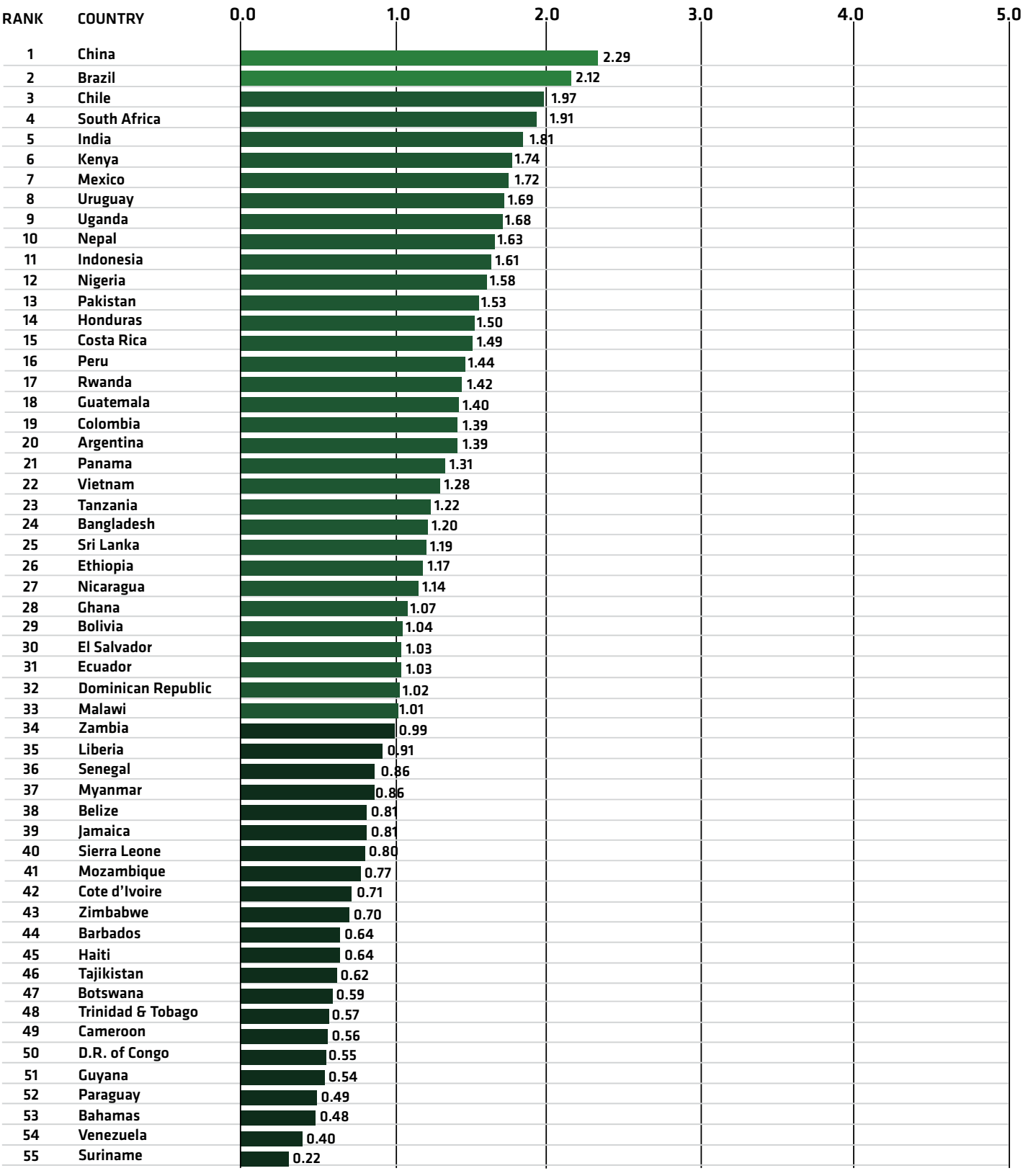
TOP 10 CLIMATESCOPE COUNTRIES

RANK	COUNTRY	SCORE	STRONGEST PARAMETER	WEAKEST PARAMETER	COMMENT
1	China	2.29	III / IV: Value Chains / Greenhouse Gas Management	I: Enabling Framework	Surging investment, new capacity, plus pilot carbon markets put China top of the table
2	Brazil	2.12	III / IV: Value Chains / GHG Management	II: Investment	Continued growth, despite a cooling economy and diminished credit availability
3	Chile	1.97	IV: GHG Management	III: Value Chains	Latin America's solar leader with 12% of all 2014 generation from renewables
4	South Africa	1.91	III: Value Chains	I / IV: Enabling Framework / GHG Management	Continued growth in capacity and investment thanks to power contract tenders
5	India	1.81	III: Value chains	II: Investment	New policy ambitions from the Modi government signal clean energy opportunities ahead
6	Kenya	1.74	I: Enabling Framework	IV: GHG Management	Early mover for policy and investment in Africa, especially for geothermal
7	Mexico	1.72	III / IV: Value Chains / GHG Management	I: Enabling Framework	Energy reforms underway promise opportunities for renewables
8	Uruguay	1.69	I: Enabling Framework	III: Value Chains	Strong clean energy deployment follow strong investment in 2013
9	Uganda	1.68	I / III: Enabling Framework / Value Chains	II: Investment	Innovative feed-in tariff/auction program plus comparatively developed value chains
10	Nepal	1.63	II: Investment	IV: GHG Management	National goals for new hydro development plus a new solar financing

Source: Bloomberg New Energy Finance

2015 Global Climatescope scores

Overall ranking top 55



Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

Chile saw its ranking rise one slot year-on-year to third with a score of 1.97, up from 1.79 due to a major jump in its Parameter I score. South Africa sank one slot to fourth but saw its overall score stay approximately level at 1.91. Finally, India rounded out the top five with a score of 1.81.

ENABLING FRAMEWORK PARAMETER I

Climatescope's Enabling Framework Parameter I includes a total of 22 indicators, which assess a country's policy and power sector structure, levels of clean energy penetration, level of price attractiveness for clean energy deployment, and the expectations for how large the market for clean energy can become. Parameter I took into account a wide variety of indicators to compile a final score. This ranged from the macro in the form of overall policy scores for a country's clean energy policy regime, to the micro in the form of kerosene or diesel prices for lesser developed nations. Parameter I contributed 40% toward each nation's overall score. (For more on how this parameter and other were scores, please see the complete *Climatescope* methodology.)

The average Enabling Framework score across all 55 nations for this year's *Climatescope* rose to 1.15 from 1.09 in the prior year, indicating that fundamental market and policy conditions across these countries have improved. Still, given that the maximum score is 5.0, substantial work remains to be improve frameworks in these emerging markets.

A key input into Parameter I is the Clean Energy Policies indicator, the one indicator in the entire *Climatescope* that relies on a degree of qualitative input from 78 outside policy experts globally surveyed by Bloomberg New Energy Finance. The average clean energy policy score achieved across all Climatescope nations rose to 1.25 in this year's study, up from 1.11 last year, suggesting steady progress overall. Thirty countries saw their scores rise on this indicator while 15 saw theirs decline (10 countries achieved the same score year to year).

Among the top five Enabling Framework scoring nations, three are in Latin America with two others in Africa. Uruguay tops the list after seeing a sharp increase in the level of clean energy generation in the country in 2014 and scoring quite well on the Clean Energy Policies indicator. Among South America's smallest nations by population, Uruguay added 469MW of wind and solar in 2013. That, in turn, boosted the country's low-carbon generation figures in 2014 as those projects logged a full year of service. The country appears poised for another strong year in 2015 thanks to another 902MW of renewable capacity being commissioned in 2014.
Rwanda continues to be one of Africa's success stories thanks to its ambitious efforts to add 563MW of new clean capacity and achieve energy access for 70% of its citizens by June 2018. The country now boasts sub-Saharan Africa's largest PV project outside South Africa, albeit at 8.5MW, while seeking to foster mini-grid development and pushing for utility reform. Renewables already supply most of the country's power, with 57% small hydro and 6% solar; the rest is mostly diesel, suggesting further potential opportunities.

Brazil scored well on the Enabling Framework parameter, but not entirely for reasons its citizens would cheer. The country fared decently for its clean energy policy regime and for its level of biofuels production (the country is 2nd only to the US on that count). However, its score on this parameter was also boosted by a surge in local power prices in 2014 thanks to a drought that depressed large hydro power generation. Such prices make new clean energy development a more attractive proposition for developers and thus bolstered the country's *Climatescope* score.

Power prices, both at the industrial/wholesale and residential level, remained stubbornly high in most *Climatescope* nations in 2014, despite a precipitous decline in oil prices during the last quarter of the year. Crude prices have remained low into 2015 and the impact of that change may well be seen in next year's *Climatescope* survey of power prices.

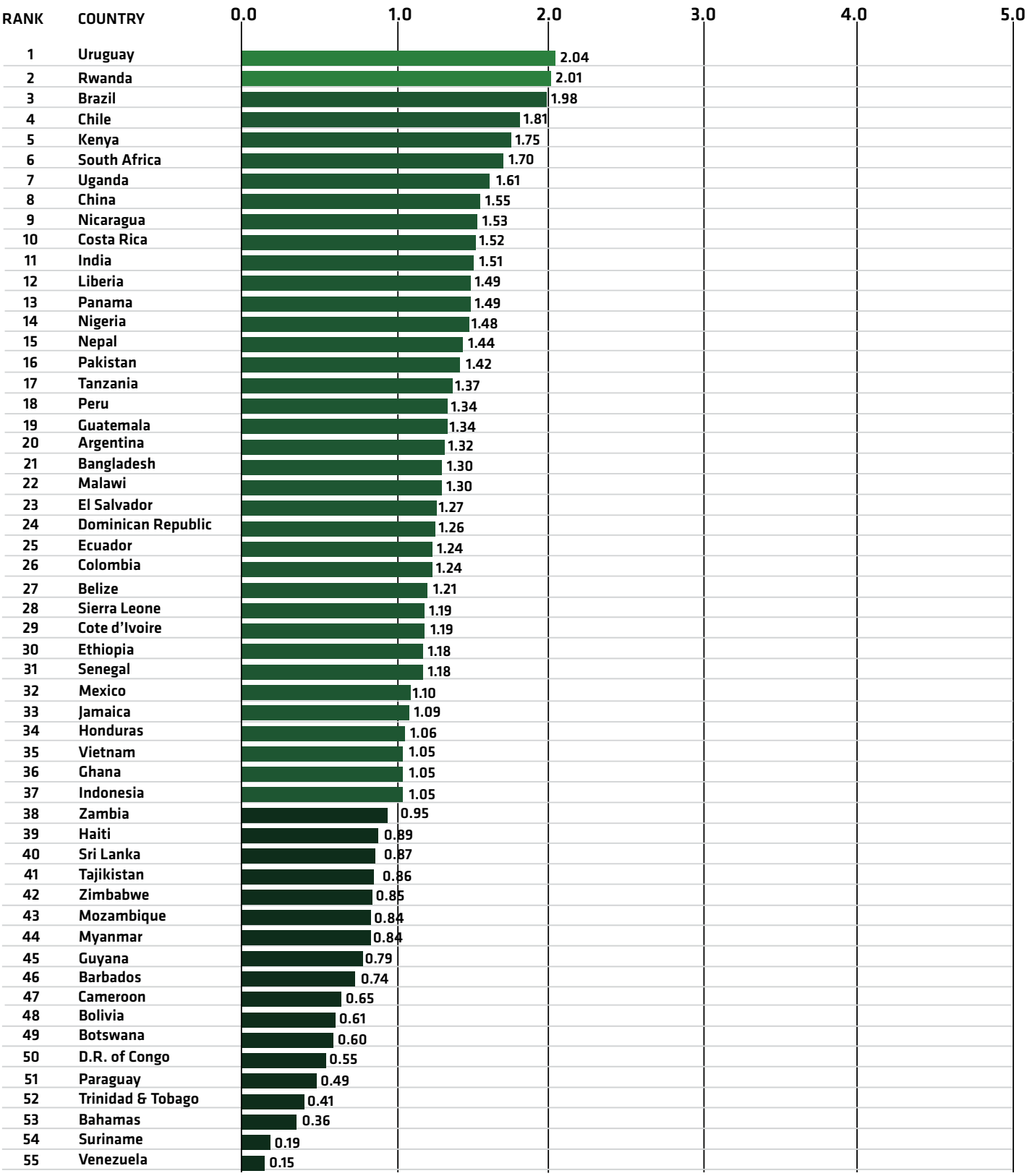
PARAMETER I, TOP 5 COUNTRIES

RANK	COUNTRY	SCORE	REASON
1	Uruguay	2.04	Successful reverse auctions for wind power supply contracts have spurred substantial new build
2	Rwanda	2.01	Aiming for 70% clean energy by June 2018 with feed-in tariffs, other incentives
3	Brazil	1.98	Auctions for power contracts continue to offer clean energy opportunities despite economic slowdown
4	Chile	1.81	20% by 2025 renewables target plus exemption from transmission tax
5	Kenya	1.75	Extensive policy framework, also covering energy access, but continued high fuel prices

Source: Bloomberg New Energy Finance

2015 Global Climatescope scores

Parameter I ranking



Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

It should be noted that most of the nations that finished near the bottom of the Enabling Framework in the previous edition of *Climatescope* remained there once again this year. Still, there were some notable exceptions. Tajiikistan, for instance, moved from 52nd on the overall Enabling Framework list to 41st. This was primarily due to the fact that the country growth rate of installed clean energy capacity and generation both rose year-on-year.

CLEAN ENERGY INVESTMENT & CLIMATE FINANCING PARAMETER II

Climatescope's Clean Energy Investment & Climate Financing Parameter II encapsulates 14 data indicators. It accounts for the amount of clean energy investment a country attracts, the availability of local funds, the local cost of debt and green microfinance activity. Parameter II contributed 30% toward each nation's overall score.

As discussed above, the *Climatescope* countries collectively had an exceptional year in generating new clean energy investment. In fact, the majority of new capital invested in zero-carbon energy projects worldwide in 2014 went toward non-OECD countries.

Still, among the individual *Climatescope* nations there is substantial variation between those countries where investors are clearly active and interested and those where they are not. From 2010-14, one half the countries attracted $478bn in new capital for clean energy projects while the other saw just $1.5bn. This comparison is warped somewhat by the massive contributions of China which on its own attracted $303bn over that time. Still, the gap between the "haves" and "have nots" is wide; 10 nations on the list have between them seen virtually no investment in large-scale projects at all in five years.

Among the top five scorers, there were some rather intriguing results. Four of *Climatescope's* smaller nations – Honduras, Bolivia, Nepal, and Guatemala (in that order) – attained the strongest scores, followed by the largest country, China, in fifth.

It is important to note that several key indicators used to calculate the Parameter II score are "levelized" against a country's gross domestic product. That is, the methodology seeks to take into account and then discount the fact that some nations attract larger volumes of capital simply because they are bigger.

In 2014, Honduras benefited from a notably strong performance on the Growth Rate of Clean Energy Investments Indicator, which accounts for 22.5% of a country's overall Parameter II score (and 6.75% of a country's overall Climatescope score). Total clean energy capital deployed there in 2014 was $823m and has totalled over $1.4bn since the start of 2010. The country also registered sharp improvement on the Local Investments indicator.

As of the start of the second half of 2015, Honduras has the second most solar capacity installed of any country in Latin America, suggesting it is on track to fare well again in next year's Climatescope. Foreign developers such as SunEdison and foreign financiers such as the Netherlands Development Finance Company and others have been active there, but local investment activity has been strong as well.

Bolivia has traditionally seen little zero-carbon energy investment but in 2014, the county fared quite well on Parameter II. In all, $40.6m was invested in 2014. While this is not a tremendous amount, it produced an exceptionally strong rate of growth compared to historic activity and Bolivia's score was bolstered as a result.

For its part, China was far and away the worldwide leader in attracting new capital for clean energy capital for projects in 2014 and has attracted $304bn in such investment since the start

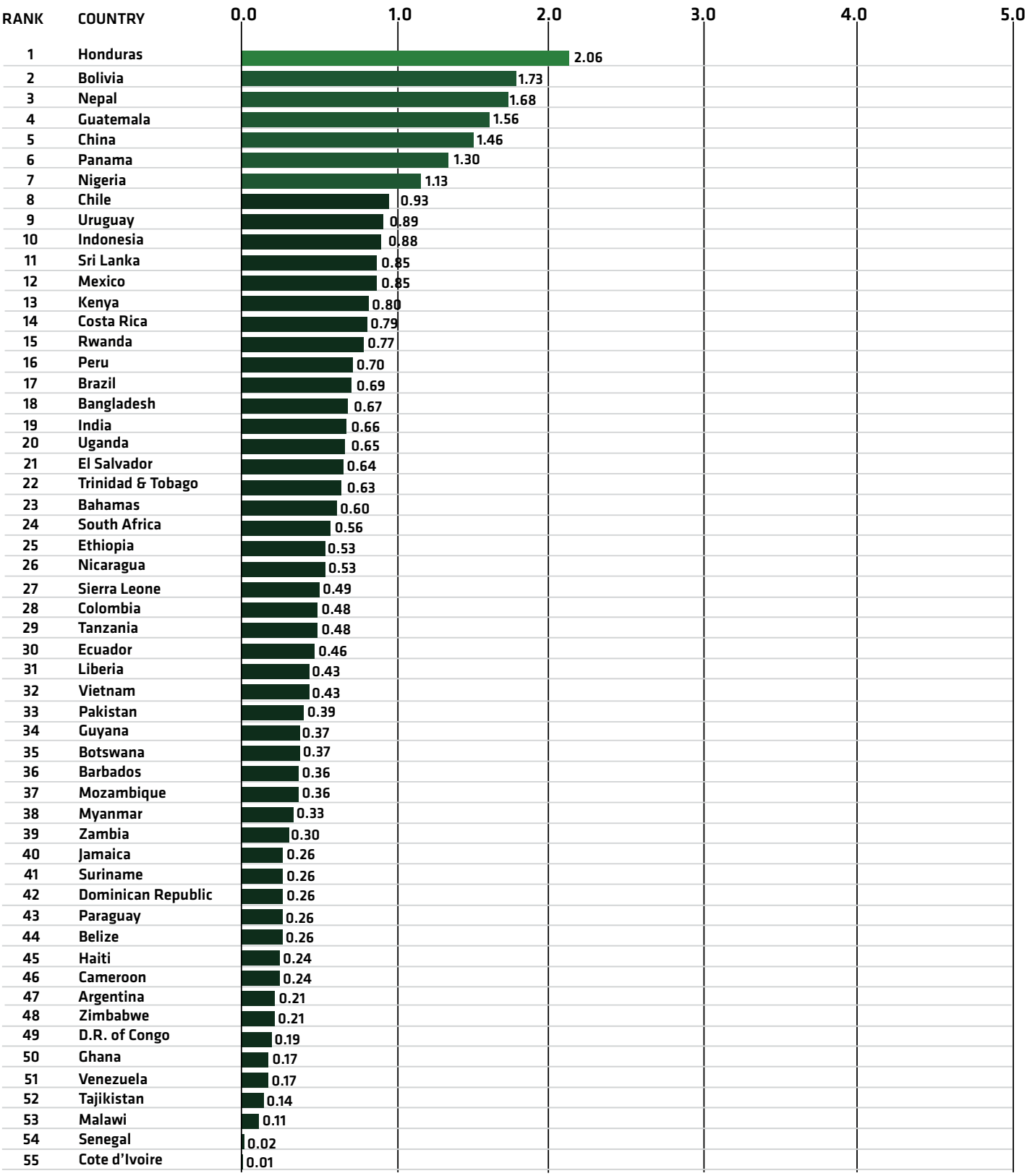
PARAMETER II, TOP 5 COUNTRIES

RANK	COUNTRY	SCORE	REASON
1	Honduras	2.06	Surge in 2014 capital raised ($823m) boosted country's investment growth rate
2	Bolivia	1.73	Two project financings in 2014 bolstered growth off of low base
3	Nepal	1.68	Comparatively strong availability of local grants and grant programs
4	Guatemala	1.56	A new investment high in 2014 with $700m into eight new projects
5	China	1.46	The world leader in investment, far and away with $304bn deployed since 2010

Source: Bloomberg New Energy Finance

2015 Global Climatescope scores

Parameter II ranking



RANK	COUNTRY	
1	Honduras	2.06
2	Bolivia	1.73
3	Nepal	1.68
4	Guatemala	1.56
5	China	1.46
6	Panama	1.30
7	Nigeria	1.13
8	Chile	0.93
9	Uruguay	0.89
10	Indonesia	0.88
11	Sri Lanka	0.85
12	Mexico	0.85
13	Kenya	0.80
14	Costa Rica	0.79
15	Rwanda	0.77
16	Peru	0.70
17	Brazil	0.69
18	Bangladesh	0.67
19	India	0.66
20	Uganda	0.65
21	El Salvador	0.64
22	Trinidad & Tobago	0.63
23	Bahamas	0.60
24	South Africa	0.56
25	Ethiopia	0.53
26	Nicaragua	0.53
27	Sierra Leone	0.49
28	Colombia	0.48
29	Tanzania	0.48
30	Ecuador	0.46
31	Liberia	0.43
32	Vietnam	0.43
33	Pakistan	0.39
34	Guyana	0.37
35	Botswana	0.37
36	Barbados	0.36
37	Mozambique	0.36
38	Myanmar	0.33
39	Zambia	0.30
40	Jamaica	0.26
41	Suriname	0.26
42	Dominican Republic	0.26
43	Paraguay	0.26
44	Belize	0.26
45	Haiti	0.24
46	Cameroon	0.24
47	Argentina	0.21
48	Zimbabwe	0.21
49	D.R. of Congo	0.19
50	Ghana	0.17
51	Venezuela	0.17
52	Tajikistan	0.14
53	Malawi	0.11
54	Senegal	0.02
55	Cote d'Ivoire	0.01

Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

of 2010. Even levelized against China's massive $11tr GDP, this allowed the country to score in the top five on Parameter II. Taking into account all forms of clean energy investment, the country saw $89bn deployed in 2014 – a record for any country ever as tracked by Bloomberg New Energy Finance.

LOW-CARBON BUSINESS AND CLEAN ENERGY VALUE CHAINS PARAMETER III

Low-Carbon Business and Clean Energy Value Chains Parameter III employed three indicators to measure the availability of local manufacturing and other similar types of capacity to spur clean energy deployment. These seek to take into account the availability of local manufacturers to provide the equipment needed to construct projects, local financial firms to provide capital, and local service firms to provide assistance such as legal or other services. For lesser developed nations, this parameter used the augmented off-grid focus methodology to take into account the availability of technical assistance and service providers in value chains specifically related to distributed clean energy. In all, *Climatescope* sought to account for no less than 63 segments of these value chains. In the case of nations deemed sufficiently "off-grid", a total of 78 value chain segments were assessed. Parameter III contributed 15% toward each nation's overall score.

It is important to note that Parameter III measures where certain value chain segments are present. It does not take into account the volume of actual output occurring locally.

Expanding manufacturing chains can be a slow and laborious process. Thus it could come as relatively little surprise that *Climatescope* tracked only an incremental change in the value chain segments present in the 55 countries from 2013-2014. Overall, the average score among all nations on Parameter III moved to 1.96 in the latest survey from 1.95 the year prior.

Among the four *Climatescope* parameters, Parameter III saw the widest gap between the highest and lowest scorer. This is because to a large degree, scoring is impacted by a country's size. Larger nations tend to have larger volumes installed and this, in turn, makes the market more demanding of locally-made goods. This demand can be driven by economics as, for instance, it can be far less costly to procure multi-ton wind turbine in-country than from overseas. Or it can be driven by policy through so-called domestic-content rules that simply mandate or incentivize local projects to use locally-made equipment.

The same countries that achieved the highest Parameter III scores in the 2014 edition of *Climatescope* have returned. China has once again achieved a "perfect" score of 5.0 due to the fact that the country is home to manufacturers in every one of the 63 segments surveyed across each of the sectors (wind, solar, biomass & waste, biofuels, geothermal, and small hydro).

Not reflected in these scores is the growth seen in certain countries in terms of number of plants operating in certain manufacturing sub-segments and overall growth. For instance, India had a PV cell manufacturing plant on line as early as 1999 but commissioned at least four more in 2014. India has had a domestic-content rule that has compelled project developers to use locally-made equipment. This has accelerated local growth in manufacturing while raising complaints from overseas suppliers.

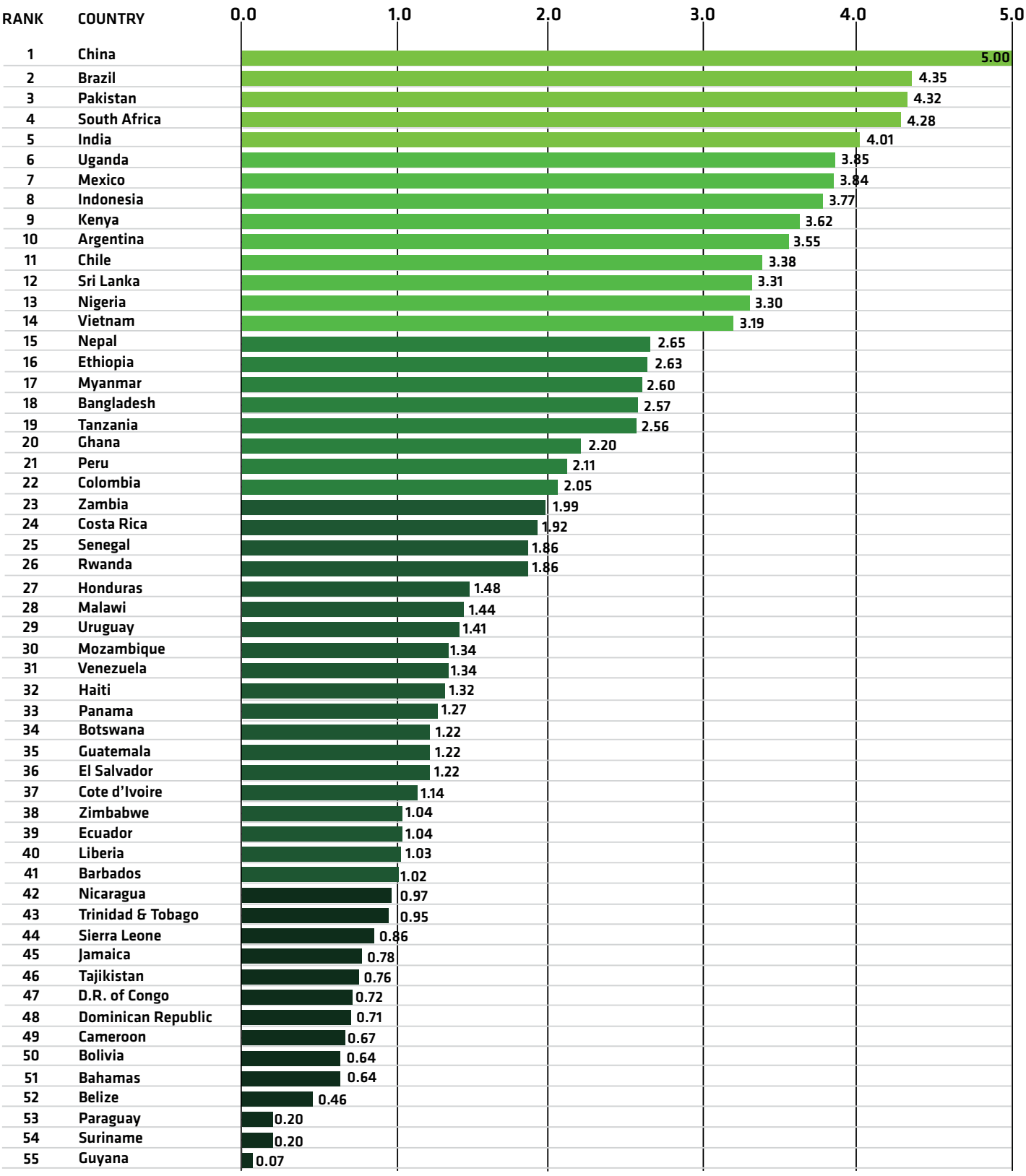
PARAMETER III, TOP FINISHERS

RANK	COUNTRY	SCORE	REASON
1	China	5.00	Home to every value chain segment assessed for Climatescope
2	Brazil	4.35	Building out wind and solar manufacturing, in part so projects can meet local-content requirements
3	Pakistan	4.32	Some manufacturing segments locally in every clean energy sector except geothermal
4	South Africa	4.28	Home to more clean energy equipment manufacturing than elsewhere in sub-Saharan Africa
5	India	4.01	Growing producer of photovoltaic equipment for in-country use thanks partly to domestic content rules

Source: Bloomberg New Energy Finance

2015 Global Climatescope scores

Parameter III ranking



Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

GREENHOUSE GAS MANAGEMENT ACTIVITIES PARAMETER IV

Greenhouse Gas Management Activities Parameter IV takes into account carbon offset project activity, level of policy support for carbon emissions reduction, and local corporate awareness of carbon issues through a total of 13 indicator inputs. Parameter IV contributed 15% toward each nation's overall score.

Relevant indicators are arranged into three categories: Carbon Offsets, Carbon Policy and Corporate Awareness. The Carbon Offset category measures what countries have done to develop offset projects and measures their potential to continue into the future. It holds the greatest weight toward the overall Parameter IV score at 40%. The other two categories account for 30% apiece.

Across all 55 *Climatescope* nations, the average Parameter IV score ticked up to 1.36 from 1.34 the year prior. Once again, this suggests room for considerable improvement in future years and hopefully these scores will rise in the wake of the UN-sponsored climate negotiations scheduled for December 2015.

The appearance of China, the world's largest CO2 emitter, atop this table may surprise some. However, it is worth noting that *Climatescope* methodology does not measure countries' emissions or reduce their scores when these are high. Rather, it seeks to take into account efforts launched explicitly to reduce future emissions.

It is largely for this reason that China fares well and scored highly in the prior edition of *Climatescope* (3rd last year). The country has been credited for establishing province-level cap-and-trade programs and registries for counting emissions. In November 2014, China declared for the first time its plan to curb overall CO2 emissions growth by the end of the next decade.

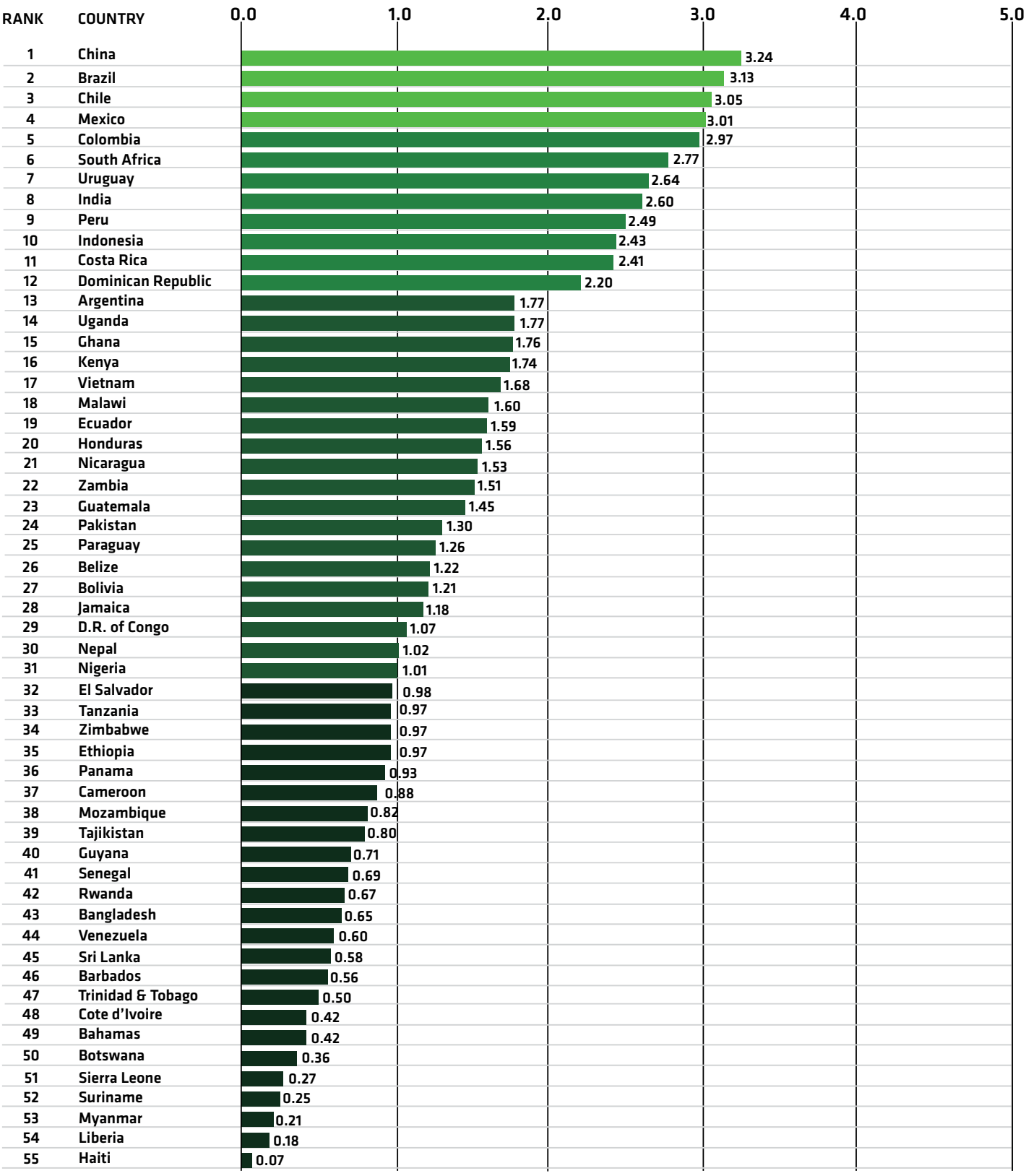
PARAMETER IV, TOP FINISHERS

RANK	COUNTRY	SCORE	REASON
1	China	3.24	World's largest CO2 emitter scored well due to registries and reduction targets, plus provincial cap-and-trade
2	Brazil	3.13	Has 423 offset projects registered and a comparatively large number of corporates with GHG efforts
3	Chile	3.05	Has 121 offset projects registered internationally
4	Mexico	3.01	National GHG reduction target seeks 30% cuts by 2020 and 50% by 2050
5	Colombia	2.97	Member of the Partnership for Market Readiness with 72 offset projects under development

Source: Bloomberg New Energy Finance

2015 Global Climatescope scores

Parameter IV ranking



RANK	COUNTRY	
1	China	3.24
2	Brazil	3.13
3	Chile	3.05
4	Mexico	3.01
5	Colombia	2.97
6	South Africa	2.77
7	Uruguay	2.64
8	India	2.60
9	Peru	2.49
10	Indonesia	2.43
11	Costa Rica	2.41
12	Dominican Republic	2.20
13	Argentina	1.77
14	Uganda	1.77
15	Ghana	1.76
16	Kenya	1.74
17	Vietnam	1.68
18	Malawi	1.60
19	Ecuador	1.59
20	Honduras	1.56
21	Nicaragua	1.53
22	Zambia	1.51
23	Guatemala	1.45
24	Pakistan	1.30
25	Paraguay	1.26
26	Belize	1.22
27	Bolivia	1.21
28	Jamaica	1.18
29	D.R. of Congo	1.07
30	Nepal	1.02
31	Nigeria	1.01
32	El Salvador	0.98
33	Tanzania	0.97
34	Zimbabwe	0.97
35	Ethiopia	0.97
36	Panama	0.93
37	Cameroon	0.88
38	Mozambique	0.82
39	Tajikistan	0.80
40	Guyana	0.71
41	Senegal	0.69
42	Rwanda	0.67
43	Bangladesh	0.65
44	Venezuela	0.60
45	Sri Lanka	0.58
46	Barbados	0.56
47	Trinidad & Tobago	0.50
48	Cote d'Ivoire	0.42
49	Bahamas	0.42
50	Botswana	0.36
51	Sierra Leone	0.27
52	Suriname	0.25
53	Myanmar	0.21
54	Liberia	0.18
55	Haiti	0.07

Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

METHODOLOGY

A long lens was used by astronauts aboard the International Space Station to take this photograph highlighting many natural and built features around Cancún. The street pattern of this Mexican tourist mecca contrasts with the waterways of the marinas that open into the bay and the lagoons. And the brilliant blue water over coral reefs contrasts with the dark waters of inland lagoons. The reefs are part of the second largest reef system on Earth, and they draw tourists from all over the world.

OVERVIEW

Climatescope seeks to bring quantitative rigor to the basic question of what makes a country attractive for clean energy investment, development, and deployment. It seeks to answer this by collecting as much relevant data as possible, then organizing it in a manner that is both easy to consume and empowers users to gain key insights.

Climatescope ranks countries on their past, present, and future ability to attract investment for clean energy companies and projects. Clean energy is defined as biofuels, biomass & waste, geothermal, solar, wind and small hydro (up to 50MW). While a number of Climatescope nations have historically embraced large hydro generation to meet local power needs, this study focused exclusively on newer sources of low-carbon generation, both because they are often technologically cutting edge and because they can generally be deployed far faster than large hydro projects, which can take years or even decades to commission. By comparison, wind projects can be sited and erected in as little as two to three years. Utility-scale solar photovoltaic projects can be constructed in as little as six months and distributed photovoltaic systems can be added to rooftops in a day or less. In short, these technologies are poised to make – and in many cases are already making – near immediate impact on energy supply and access in the developing world. Climatescope sought to assess how ready these countries are to embrace them.

In this fourth edition of the project, the index once again consists of four overarching parameters. Beneath these parameters are 53 data inputs, or indicators. Some indicators consist of a single data input but many consist of multiple data points that have been synthesized into a single figure. Each indicator counts toward a country's final score but these are not weighted equally (see illustration on pages 26 and 27). Scores range from 0 to a maximum of 5.

The final score a country receives under *Climatescope* is determined by a weighted combination of its four parameter scores. For 2015, the weighting of these parameters remains as it was in 2014:

The entire *Climatescope* model can be viewed at www.global-climatescope.org where users are encouraged to adjust the parameter weightings according to their priorities and download the aggregate data available.

I	Enabling Framework	40%
II	Clean Energy Investment and Climate Financing	30%
III	Low-carbon Business and Clean Energy Value Chains	15%
IV	Greenhouse Gas Management Activities	15%

METHODOLOGY OVERVIEW

I. ENABLING FRAMEWORK — 40%

	On-grid	Off-grid
Policy & Regulation		
Clean Energy Policies	9.6%	6.4%
Power Market Structure	4.8%	4.0%
Distributed Energy Regulatory Framework	0.0%	2.4%
Clean Energy Rural Electrification Programs	0.8%	0.8%
Energy Access Policies	0.0%	1.6%
Policy Barriers	0.8%	0.8%
Clean Energy Penetration		
Clean Energy Installed Capacity	3.2%	3.2%
Growth Rate of Clean Energy Installed Capacity	3.2%	3.2%
Clean Energy Electricity Generation	3.2%	3.2%
Growth Rate of Clean Energy Electricity Generation	3.2%	3.2%
Biofuels Production	1.6%	1.6%
Growth Rate of Biofuels Production	1.6%	1.6%
Price Attractiveness		
Average Retail Electricity Prices	2.0%	0.0%
Average Electricity Spot Prices	2.0%	2.4%
Average Kerosene Prices	0.0%	0.8%
Average Diesel Prices	0.0%	0.8%
Market Size Expectation		
Growth Rate of Power Demand	2.0%	1.2%
Electrification Rate	2.0%	2.4%
Population Using Solid Fuels For Cooking	0.0%	0.4%

II. CLEAN ENERGY INVESTMENT AND CLIMATE FINANCING — 30%

	On-grid	Off-grid
Amount Invested		
Clean Energy Investment	6.8%	8.1%
Growth Rate of Clean Energy Investment	6.8%	5.4%
Fund Sources		
Loans, Grants, Grant Programs	3.0%	3.0%
Local Investment	3.0%	3.0%

Colors show methodology subdivisions and weightings

PARAMETER | WEIGHT | CATEGORY | INDICATOR | ON-GRID NET WEIGHT | OFF-GRID NET WEIGHT

METHODOLOGY OVERVIEW (continued)

Green Microfinance	On-grid	Off-grid
Number of Green Microfinance Institutions (MFIs)	2.1%	2.1%
Green Microloans	1.2%	1.2%
Green Microborrowers	1.2%	1.2%
Average Cost of Green Microdebt	1.0%	1.0%
Cost of Debt		
Average Cost of Debt	2.6%	2.6%
Swap Rate	2.6%	2.6%

III. LOW-CARBON BUSINESS & CLEAN ENERGY VALUE CHAINS — 15%

Value Chain	On-grid	Off-grid
Financial Institutions in Clean Energy	3.8%	3.0%
Value Chains by Clean Energy Sector	7.5%	3.0%
Distributed Clean Energy Value Chains By Sector	0.0%	3.0%
Clean Energy Service Providers	3.8%	3.0%
Distributed Clean Energy Service Providers	0.0%	3.0%

IV. GREENHOUSE GAS MANAGEMENT ACTIVITIES — 15%

Carbon Offsets	On-grid	Off-grid
Historic Activity	3.0%	3.0%
Clean Development Mechanism (CDM) Risk	1.5%	1.5%
Future Potential	1.5%	1.5%
Carbon Policy		
Greenhouse Gas (GHG) Emission Reduction Targets	1.9%	1.9%
Country Registry	1.1%	1.1%
Market-Based Instruments	0.4%	0.4%
PMR & NAMA Commitments	1.1%	1.1%
Corporate Awareness		
GHG Global Reporting Initiatives	0.8%	0.8%
Principles of Responsible Investment	0.8%	0.8%
Energy Efficiency Initiatives	0.8%	0.8%
Emission Reduction Policies	0.8%	0.8%
Environmentally Focused Business Training	0.8%	0.8%
Environmentally Focused Think Tanks	0.8%	0.8%

ACCOUNTING FOR LESSER DEVELOPED NATIONS THROUGH THE "OFF-GRID FOCUS" METHODOLOGY

As in 2014, *Climatescope* 2015 assessed nations ranging from lowest income to those firmly considered "middle income". As a result, *Climatescope* 2015 once again includes a special, augmented "off-grid focus" methodology that includes seven special indicators, with weightings adjusted in the model accordingly. These indicators were taken into account alongside the other "on-grid" indicators for a sub-set of 23 *Climatescope* nations: 18 in Africa, one in Latin America and Caribbean, and four in Asia.

The goal of the off-grid effort is to level the playing field so that all countries can be compared in the fairest possible manner against one another in a single 55-country list. In addition, visitors to www.global-climatescope.org can examine the specific off-grid focus indicators in detail if they choose and compare in isolation the 23 nations that were assessed using this methodology.

To determine which countries are assessed using the off-grid focus methodology, a 0-5 scoring system was once again applied. Five factors contributed at different weightings to this score; those that score a 2.5 or higher are considered "off-grid focus countries".

The off-grid focus methodology's additional indicators were specifically designed in consultation with outside experts to assess conditions in developing nations. These indicators fell under *Climatescope's* first three parameters but had no impact on Greenhouse Gas Management Activities Parameter IV. They were:

- Distributed energy regulatory frameworks: How well does a country's local market structure facilitate off-grid or small-scale development of projects?
- Energy access policies: What local policies exist specifically to spur off-grid activity?
- Average local kerosene and diesel prices: How high are these prices and how attractive do they make potential alternative (cleaner) sources of generation?
- Population using solid fuels for cooking: How many citizens would potentially value alternative fuel sources to cook?
- Distributed clean energy value chains: What local mini-hydro and mini-wind equipment makers, mini-photovoltaic systems providers, and other similar types of players exist in-country?
- Distributed clean energy service providers: What local retailers, pay-as-you go facilitators, insurance providers, and others specializing in off-grid and small-scale clean energy services are in-country?

For 2015, the *Climatescope* methodology was left almost entirely unchanged from 2014. For further elaboration on the methodology as well as to review all relevant data in aggregated form, please visit www.global-climatescope.org. Questions or comments on the methodology and feedback on data are welcome and should be submitted to climatescope@bloomberg.net.

FACTOR	QUESTION	CRITERIA/SCORE	DATA SOURCE
Electrification rate	What percentage of a country's population is not currently connected to the power grid?	A country with a low enough proportion connected received a score of 2.	International Energy Agency
Number of national power outages	How many power outages did the country experience in the most recent year for which there is complete data?	A country with a sufficiently large enough number of outages scored 1.	World Bank
Duration of outages	What was the average length of time a typical grid outage lasted?	A country where outages lasted sufficient durations scored 1.	World Bank
Power transmission losses	What are the typical line losses?	A country where transmission losses exceeded a certain threshold scored 0.5	World Bank
Human Development Index	How is the country classified in the UNDP's HDI?	A country classified "Low Development" scored 0.5	UNDP

Source: Climatescope 2014

AFRICA REGIONAL SUMMARY

Located near the equator in central Africa, the Nyamuragira and Nyiragongo volcanoes are often obscured from satellite view by clouds. But on February 9, 2015, clear skies afforded an unobstructed view from space of two plumes venting from the volcanic duo in the Democratic Republic of the Congo.

OVERVIEW

Clean energy is making inroads in sub-Saharan Africa, with over $25bn deployed in renewables (excluding large hydro) by the second half of 2015. And in 2014, the region saw clean energy capacity almost double on the previous year. These technologies give developing countries the opportunity to build a different kind of energy system as they seek to address low electrification rates and high demand for new sources of power.

But progress has not been evenly spread across the 19 African countries featured in *Climatescope*. South Africa accounts for over $16bn of the region's clean energy investment tally, and Kenya a further $4bn. After Ethiopia, at $1.8bn, no other country has attracted more than $500m cumulatively. In addition, South Africa and Kenya have also had more success in squeezing out large projects than building broader pipelines of smaller ones. There are few countries with the frameworks in place for the latter, with Tanzania and Uganda leading the pack.

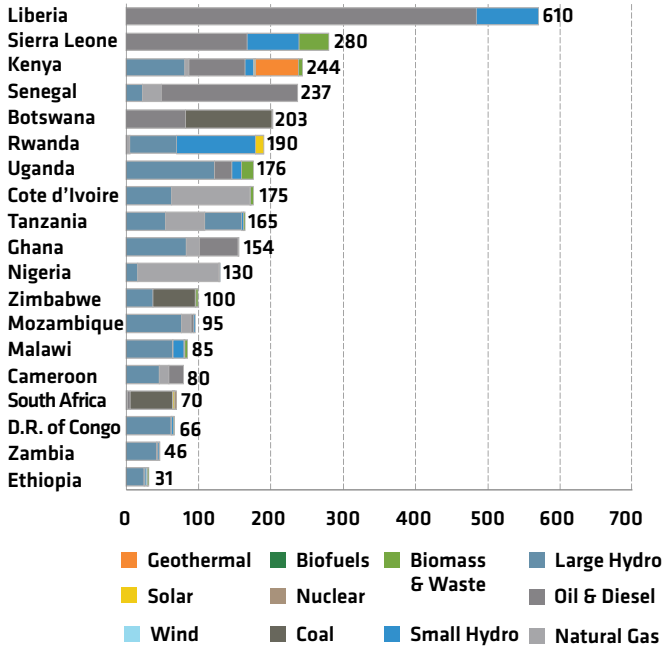
These trends are reflected in the *Climatescope* ranking this year. South Africa is again the out and out high flyer, with Kenya and Uganda keeping second and third places. Nigeria did rise up the rankings; but this had more to do with the large influence on investment and growth rates of a relatively small amount of financing in 2014 on a very low base than with progress on its policy framework – though its reform efforts do give it one of the most liberalized power sectors on the continent. Rwanda, Tanzania and Ethiopia follow next, in similar positions to last year. Beyond them, many countries struggle to score well, with policies and power sector reforms slow to materialize, and significant investment in clean energy even slower.

Notably, many of the *Climatescope* Africa scores did not increase, and in some cases actually decreased. South Africa's score of 1.91 was marginally lower than last year, reflecting delays in the financing of projects selected under the third round of its renewable auction program. After Nigeria's advance, Kenya clocked the next highest advance in score (from 1.69 to 1.74) partly related to the $860m financing of the Lake Turkana wind farm, sub-Saharan Africa's largest wind deal to date.

The biggest variations in scores between years were under Enabling Framework Parameter I and Clean Energy Investment Parameter II. There was very little movement for the African countries in terms of their value chains, under Parameter III, or carbon market activity under Parameter IV. This reflects the limited development of local value chains, and the slow growth of carbon offset projects.

Africa of course includes a wide range of development and power sector situations. This diversity is exemplified by stacking power prices against the technological make-up of the power systems. Liberia still has among the highest power prices in the world, and relies heavily on fossil fuel generation, while others – especially those with a high stock of large hydro such as Ethiopia, Zambia and the DRC – can have prices an order of magnitude lower.

AVERAGE RETAIL ELECTRICITY PRICES ($/MWh) BY POWER MIX, 2014

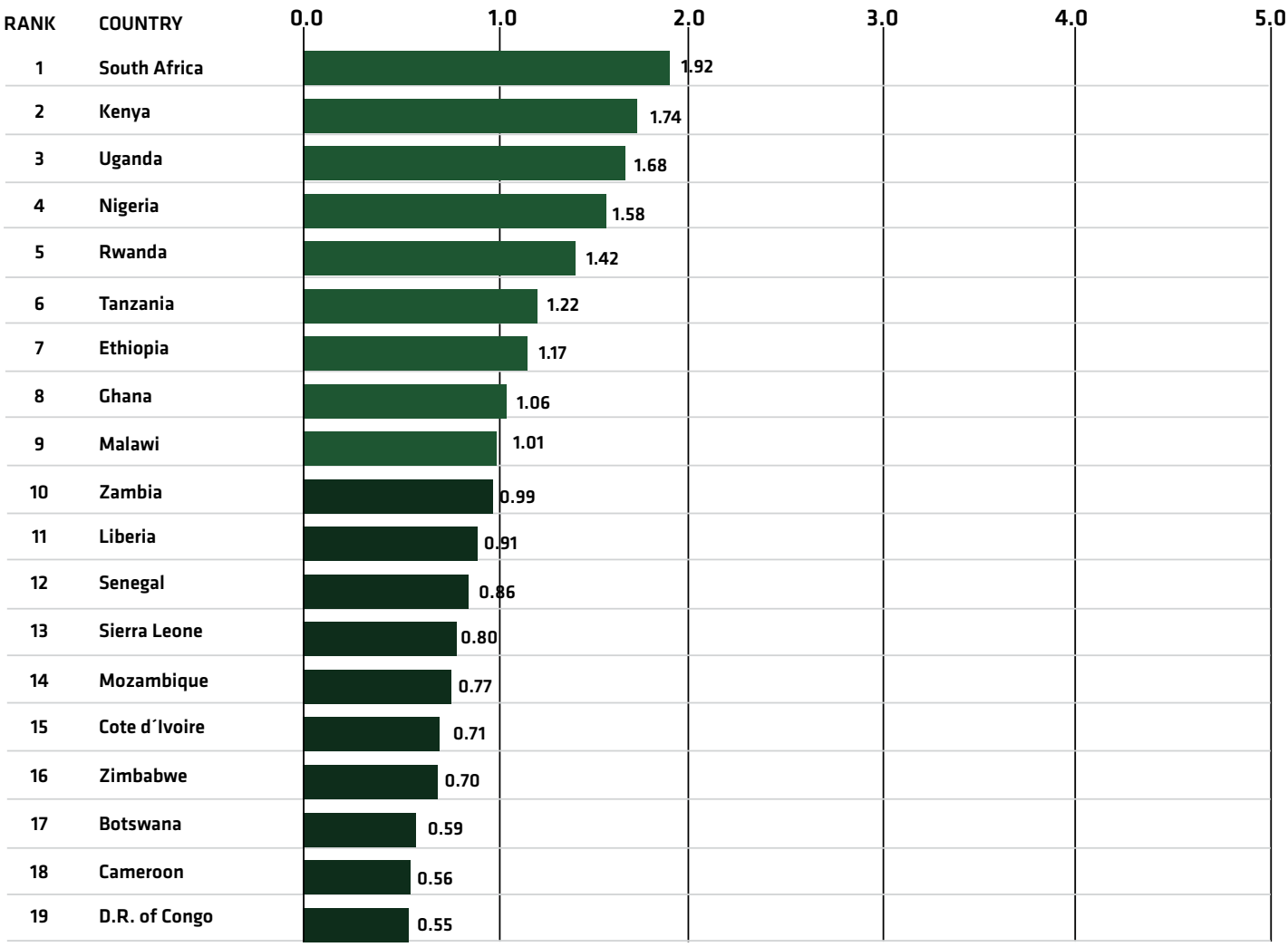


Source: Bloomberg New Energy Finance

Even with a low cost power source like large hydro, many governments artificially suppress power prices, leading to inefficient utilities and a barrier to entry for other players. Few have the stomach for the politically difficult task of raising them: only five *Climatescope* Africa countries have cost reflective tariffs. Despite increasingly favorable economics, large-scale solar development has yet to take off outside South Africa: Rwanda boasts the largest such project to date, at 8.5MW, one of the few successes of 2014. One reason is that feed-in tariffs – for instance in Ghana, Nigeria and, going as far back as 2008, in Kenya – have been slow to become operational or attract investors. Another is that governments and utilities have been slow to respond to new technologies and their reductions in cost. Another still is the low capacity of the grid for utility scale additions, and the perceived difficulty of managing their variable output.

This in turn presents an opportunity for off-grid clean energy technologies, especially small-scale solar coupled with battery storage. Pico solar lanterns with integrated phone chargers are now becoming commonplace, sold as low-cost consumer items in the millions. Entrepreneurs are scaling the services enabled by solar to include appliances made affordable through pay-as-you-go – with some already offering TVs and refrigerators to off-grid customers. Companies working at this level of the clean energy market in Africa have raised at least $250m to date, and we expect further investment and growth in this segment.

2015 Global Climatescope scores
Africa ranking



Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

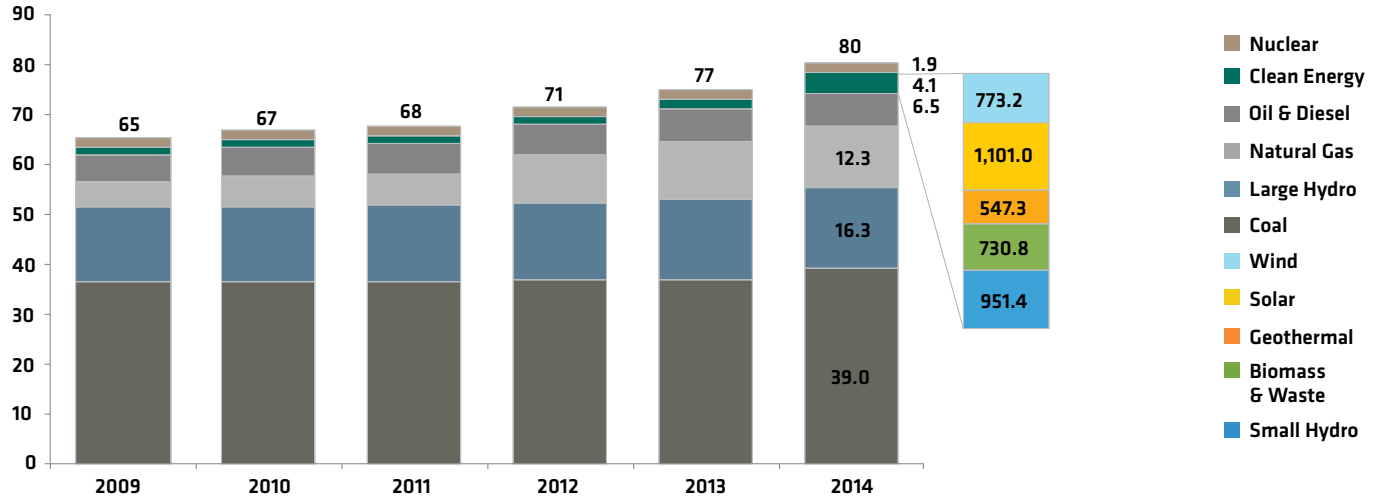
ENABLING FRAMEWORK PARAMETER I

Enabling Framework Parameter I does more than measure policies in place. It includes 22 indicators that account for a country's policy and regulatory frameworks, levels of clean energy penetration, level of price attractiveness for clean energy development, and the expectations for how large the market for clean energy can become.

For the second year running, Rwanda came out top for Parameter I. It scored highly on multiple indicators, including its high proportion of clean energy in its overall power generation capacity, while its policy framework attracted solid scores across its small-scale clean energy incentives and energy access policies. High power and fossil fuel prices are also credited as part of the enabling framework, as they signify opportunity for renewable alternatives.

In 2014, the *Climatescope* Africa countries as a whole nearly doubled their clean energy capacity, to 4.1GW from 2.1GW at the end of the previous year. This was predominantly through the addition of wind and solar capacity – with the latter accounting for 45% of the increase, and the two nearly 80% combined. This achievement should be put into some perspective – the unsunny UK added well over 2.1GW of just solar capacity in just the first quarter of 2015 in an end-of-subsidy rush – but it is an achievement to build on nonetheless.

AFRICA INSTALLED POWER CAPACITY BY SECTOR (GW) AND CLEAN ENERGY CAPACITY BY SECTOR (MW)



Source: Bloomberg New Energy Finance

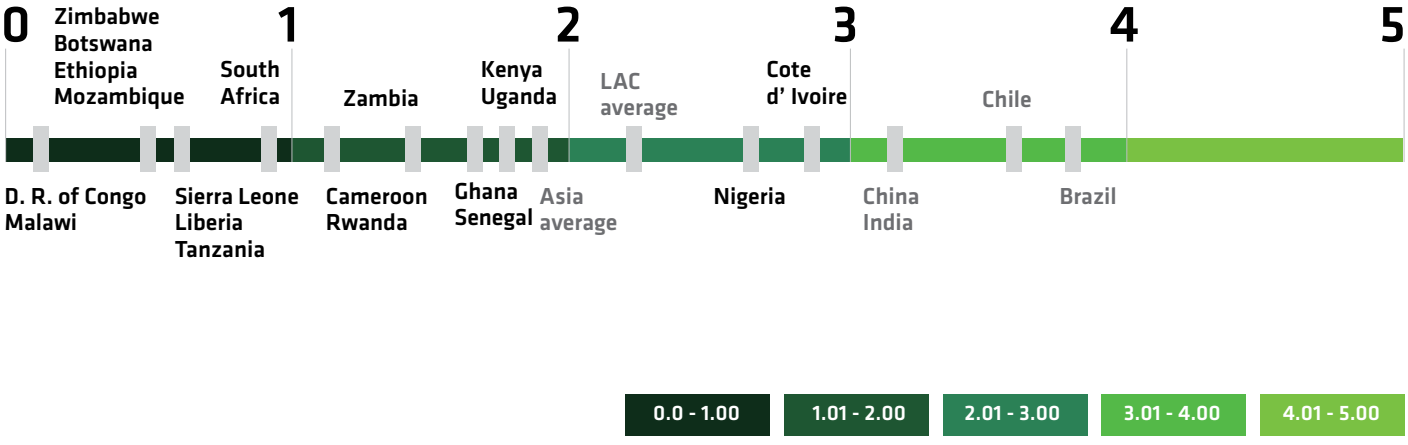
The new capacity was highly concentrated, however, with 73% built in South Africa. At the start of 2014, that country had 511MW of clean capacity, but that had climbed four-fold to 2GW by year-end. This was the result of the commissioning of projects selected in early rounds of its auction program. As a result, it scored higher in 2015 for the growth rates of its installed capacity and renewable electricity generation, which helped it climb to third among African nations on Parameter I, up eight places. Only Kenya and Ethiopia had significant renewable energy projects commissioned, with the former notably more than doubling its geothermal capacity with an expansion of nearly 300MW at the Olkaria project.

There was some progress for clean energy policy through 2014. Uganda ran the first tenders under its GET FiT program, and was credited by our panel of international policy experts for doing so, seeing its policy score improve more than any other *Climatescope* Africa nation. The success of that policy was echoed in its neighbor Tanzania, which augmented its small power producer program to introduce similar competitively-allocated FiTs in spring 2015. Mozambique also introduced a FiT in late 2014, with implementation through 2015.

South Africa, with its globally-significant REIPPP auctions, again took the highest policy score overall for Africa. At the other end of the scale, Botswana, the DRC and Sierra Leone again registered low scores for their scant policy environments. Complete descriptions of all of individual policies are available at www.global-climatescope.org.

There were no significant changes for power sector scores based on national reforms. Tanzania launched its reform process in 2014, with four stages that aim to see the national utility fully unbundled by 2025; its generation segment is slated to be split from transmission and distribution by the end of 2017. The DRC, which has the least open power sector among the Climatescope Africa countries, adopted a new electricity sector law in 2014, though the reforms have a long way to go in practice. Nigeria and Cote d'Ivoire again scored highest for power sector structure, reflecting the more advanced stages of sector liberalization in those countries. As with last year, it is notable that this has yet to translate into significant clean energy investment.

AFRICA POWER SECTOR SCORE BAROMETER



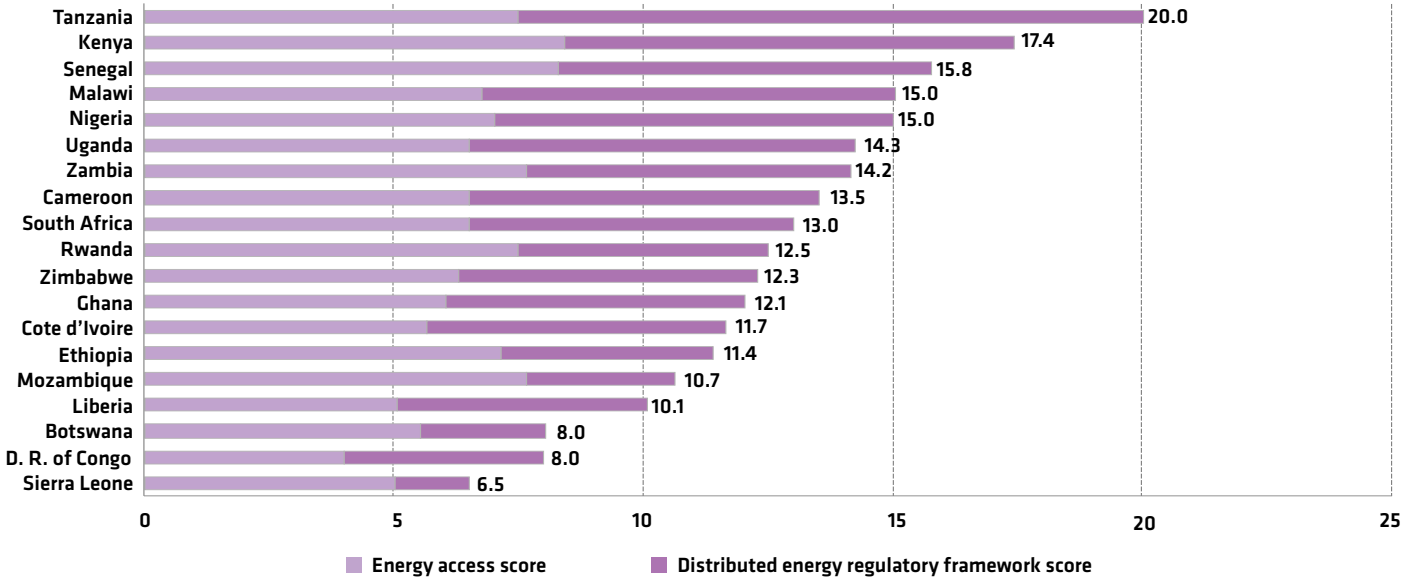
Source: Bloomberg New Energy Finance

Off grid focus enabling framework

For the enabling framework related to energy access, *Climatescope* assesses some of the key policy and regulatory questions around involving private investors, project developers and other companies in the off-grid and mini-grid sectors, as well as energy access policy, electrification rates and the size of the population using solid fuel for cooking.

As last year, Tanzania stands out for its policy-related off-grid focus score. The country's program for small and mini-grid power producers has continued to develop a pipeline of projects. Kenya follows, as last year, with standardized power purchase agreements also available for small projects there, while Uganda moves up, a reflection of its own innovative GET FiT program. East Africa clearly leads the way for tackling energy access through policy mechanisms.

DISTRIBUTED ENERGY AND ENERGY ACCESS SCORES



Source: Bloomberg New Energy Finance Note: Refer to the methodology section for more information about the components of the off-grid indicators.

CLEAN ENERGY INVESTMENT & CLIMATE FINANCING PARAMETER II

Clean Energy Investment & Climate Financing Parameter II looks at 14 indicators and accounts for the amount of clean energy investment a country attracts, the availability of local funds, the local cost of debt and green microfinance activity.

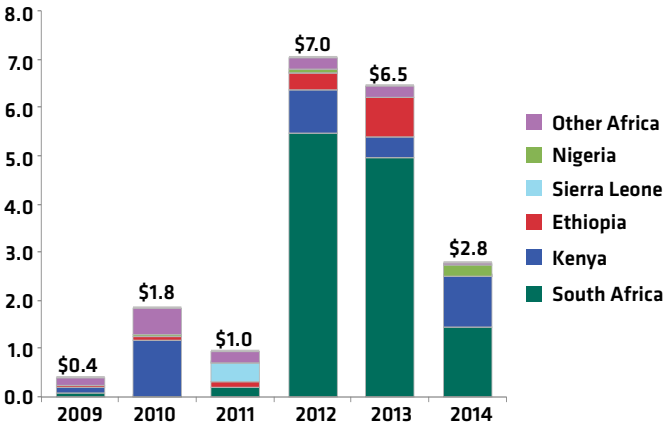
South Africa was again the leading African country for clean energy investment, followed by Kenya. But no other country came within touching distance for 2014. Overall, the continent saw a 57% drop from 2013 levels. This was largely due to delays in the financing of projects selected under the third round of South Africa's auction program – which was completed in the first half of 2015 to the tune of $3.6bn. The *Climatescope* Africa countries excluding South Africa saw their clean energy investment decline 10% overall year-on-year – but this was again very chunky, with large projects having a significant impact, rather than a more diverse deal flow of smaller projects.

In 2014, Kenya replaced Ethiopia as the country with the most significant financing outside of South Africa. The 310MW Lake Turkana wind project reached financial close in March 2014 after nine years of development. At $860m it remains sub-Saharan Africa's largest wind financing to date, and was one of the largest in the world in 2014. This helped push wind's share of total clean energy investment up to 38% in 2014 from 29% the previous year, while solar again took about half.

With 13 organizations involved in the financing, Turkana is a totemic achievement in project financing for the region. It overcame multiple setbacks, including the withdrawal of the World Bank, which was unable to give a partial risk guarantee as the government would not sign a sovereign guarantee. The lead developer, Aldwych International, is also seeking to develop a 100MW wind project in Tanzania.

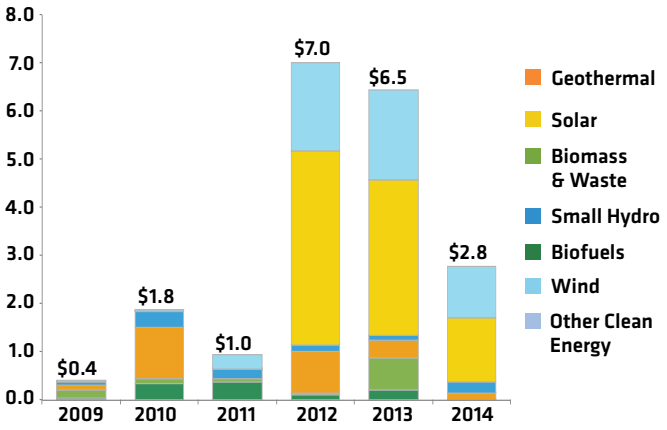
Overall, Nigeria came out top among the African countries for Parameter II. Its score was bolstered by the only other financing outside of Kenya and South Africa above a hundred million dollars in 2014, for 40MW of small hydro. As it had no significant deals the year before, Nigeria achieved maximum points for the growth rate of clean energy investment.

TOTAL INVESTMENT IN CLEAN ENERGY BY COUNTRY, 2009-2014 ($bn)



Source: Bloomberg New Energy Finance

TOTAL INVESTMENT IN CLEAN ENERGY BY SECTOR, 2009-2014 ($bn)



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

Kenya climbed four places to finish second, largely thanks to the level of investment brought in by Turkana, while South Africa slipped from third to fifth. Their high finishes on Parameter II are also explained by relatively favorable financing conditions within both countries. Third place was instead taken by Rwanda, primarily from the uptick in investment from GigaWatt Global's solar project in early 2014. That project, which was fully commissioned in the first quarter of 2015, is at 8.5MW by far the largest solar farm in the region, outside South Africa.

LAKE TURKANA WIND PROJECT FINANCE ($m)

EQUITY		DEBT	
KP&P	46.4	European Investment Bank (EIB)	276.8
Aldwych	46.4	African Development Bank (AfDB)	152.2
EU Africa Infrastructure Fund	34.6	Proparco (French financial development company)	69.2
Norwegian Investment Fund for Developing Countries (Norfund)	23.5	Standard Bank	50.5
Vestas Wind Systems	23.5	Nedbank	50.5
Investment Fund for Developing Countries (IFU, Denmark)	19.9	KfW DEG (mezzanine)	27.7
Finnish Fund for Industrial Cooperation (Finnfund)	14.8	Unknown (mezzanine)	23.5
Total	209.1	Total	209.1
Grand Total		859.5	

Source: Developers and financiers, Bloomberg New Energy Finance. The total debt represents senior long-term loans (15 years) of $599m and mezzanine debt of $51m. The debt amounts for Standard Bank and Nedbank are unknown and were split equally between the two. Loan guaratees were also provided by the US Overseas Priate Investment Corporation and the African Development Fund uner its Partial Risk Guarantee.

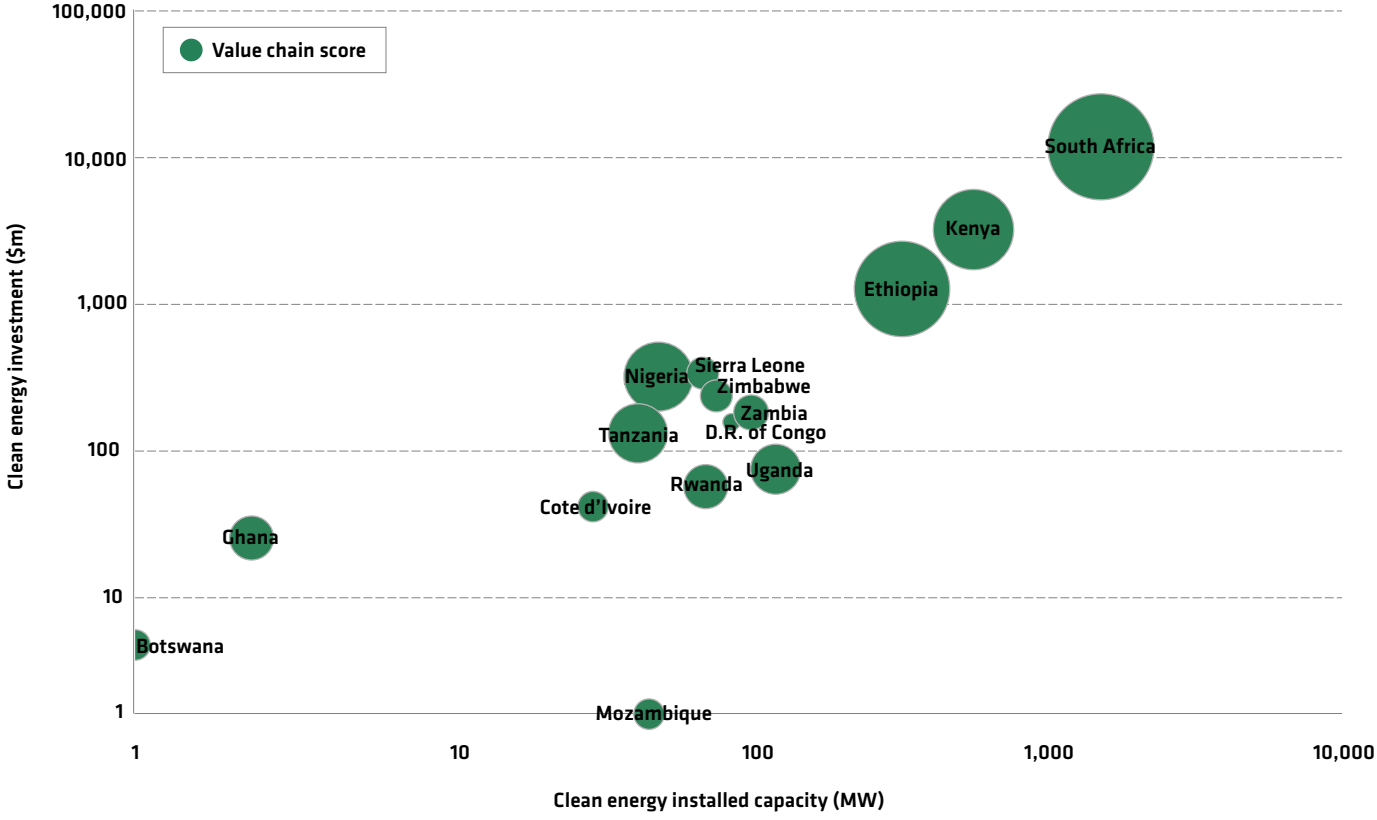
LOW-CARBON BUSINESS AND CLEAN ENERGY VALUE CHAIN PARAMETER III

Low-Carbon Business and Clean Energy Value Chain Parameter III assesses through three indicators the availability of local manufacturing and other capacity to spur clean energy deployment. These take into account the presence of local manufacturers, service providers, financiers and (for the African countries apart from South Africa) include those companies serving the off-grid and distributed energy sectors.

There was almost no variation in the clean energy value chains in place in the African countries in *Climatescope* over the course of 2014. South Africa, Uganda and Kenya again take the top three spots, and there is no change in the top 12 ranking apart from Ethiopia and Tanzania switching fifth and sixth places. We found a South African insurance provider for clean energy projects to add to the country's impressive roster of service companies active in the sector. The biggest movement in the parameter, however, was the DRC, which dropped several places as we found we had moderately overstated its meagre local manufacturing capacity in last year's assessment.

On the other hand, the higher ranked countries again demonstrate the presence of local players that could benefit from investment in clean energy. Aside from South Africa, which is really a separate case entirely, the countries that clocked high scores are those with relatively larger economies or that have seen the start of renewable energy project development in recent years. There is a clear relationship between clean energy investment and installed capacity, on one hand, and the size of the clean energy value chain, on the other. This is not controversial, or surprising, but *Climatescope* helps us demonstrate this with data.

VALUE CHAIN SCORE VS CLEAN ENERGY INVESTMENT, 2009-14 ($M) VS CLEAN ENERGY INSTALLED CAPACITY, 2014 (MW)



Source: Bloomberg New Energy Finance

South Africa's strong performance on Parameter III again reflects not just its regional relevance, but also the "local content" rules under its renewable energy auctions. Bidders are favored if they use components manufactured in-country. Solar and wind manufacturers have seen a surge in recent years, while biofuels, biomass and small hydro companies have existed for longer. South Africa's services sector befits an economy of its size, while many of its banks have been involved in financing the projects delivered through the REIPPP.

For the value chains and service providers assessed under the off-grid focus methodology, Uganda again came out top, with at least one locally-based company involved in off-grid energy including distributed solar, mini-hydro and clean cooking. Kenya, Tanzania, Rwanda and Nigeria also score strongly. In general, in many African countries the business of off-grid clean energy access – particularly through the retail of small-scale solar products – is gathering pace, albeit that may be restricted to larger towns (our analysis does not extend to the availability of these options in rural areas).

GREENHOUSE GAS MANAGEMENT ACTIVITIES PARAMETER IV

Greenhouse Gas Management Activities Parameter IV takes into account carbon offset project activity, level of policy support for carbon emissions reduction, and local corporate awareness of carbon issues through a total of 13 indicators.

In general, African countries have seen much less Clean Development Mechanism activity than Asia. This relates to risk perception, and the lower demand for credits from forestry projects versus industrial efficiency. Carbon reductions have also not been a priority for many African countries, which have lower emissions profiles to match their lower levels of industrialization.

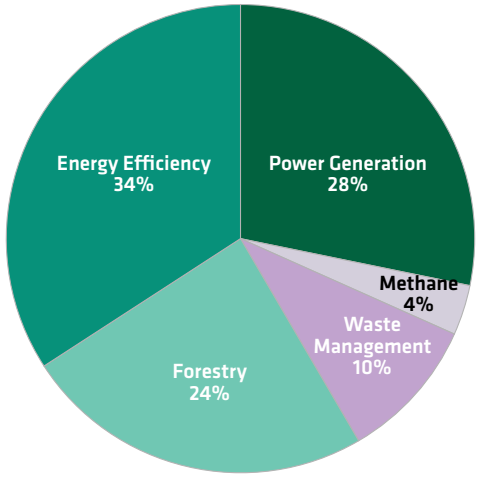
South Africa ranked 1st on Parameter IV, followed by Uganda, Ghana and Kenya. The only new entrant in the top five came with Malawi moving up a place: it registered three additional projects across the CDM and two voluntary carbon offset standards, as did South Africa, Kenya, Rwanda and the DRC. South Africa's 64 projects in total were trailed by 44 in Kenya, 25 in Uganda; but only Nigeria, with 11, is otherwise in double figures. The most common type of project was again energy efficiency with 14 of the *Climatescope* Africa countries' 18 new projects in 2014 falling under that category.

In *Climatescope*, the carbon offset score is levelized against total emissions, which meant South Africa did not score highly in this category because of its superior number of projects. Rather, it was among the few countries that host think tanks and business training in the sector – along with several East African countries and Ghana.

South Africa's Parameter IV score was also bolstered by its still being the only *Climatescope* Africa country to have any carbon policy to speak of. That may change beyond 2015, in the wake of the Paris climate conference – as indeed may the level of emissions reduction project activity on the continent.

AFRICAN GHG OFFSET PROJECTS BY SECTOR

202 GHG projects



Source: UNEP Risoe, Bloomberg New Energy Finance

ASIA REGIONAL SUMMARY

There are reportedly 117 million lakes on Earth, covering about 4 percent of the planet's non-glaciated land surfaces. The bulk of them are in the Arctic or boreal regions of North America and Eurasia, and most are largely untouched by human activity. (Check out the pockmarked, lake-rich surfaces of the Canadian Shield or the "Barren Lands" of Nunavut to get a look at what these northerly lakes are like.)
Nansi Lake in China's Shandong province has a very different story. With more than 96 million people living in Shandong, the fingerprints of human civilization are all over this shallow lake

OVERVIEW

Asia – the world's largest single landmass, five of the world's 10 most populous countries, and three of the 10 largest national economies – is a vibrant region for clean energy investment. One country, China, is simultaneously the world's biggest electricity system, the world's largest CO2 emitter, and also the world's most active clean energy investor in projects and industry value chains. India, not far behind on population, continues its clean energy expansion as it works to electrify the world's largest population without reliable access to the grid. Smaller countries such as Tajikistan, and those emerging from decades of state-controlled power sectors, such as Myanmar, all show promise for deploying capital into clean energy investment.

China and India are national energy economies, but with their vast populations and diverse natural resource bases, merit an extended inquiry into their provincial energy systems and value chains. Indeed, sub-national regions such as India's Uttar Pradesh (population approximately 200 million), or Guangdong (population more than 100 million) are as significant as large countries in their own rights. This study analyzes India's states and China's provinces in addition to each country in aggregate. Indonesia (the world's fourth-largest country with 255m people) and Bangladesh (eighth-largest, with 159m) mean that the populations studied in *Climatescope*, and the human capital that they create, exceed 3bn.

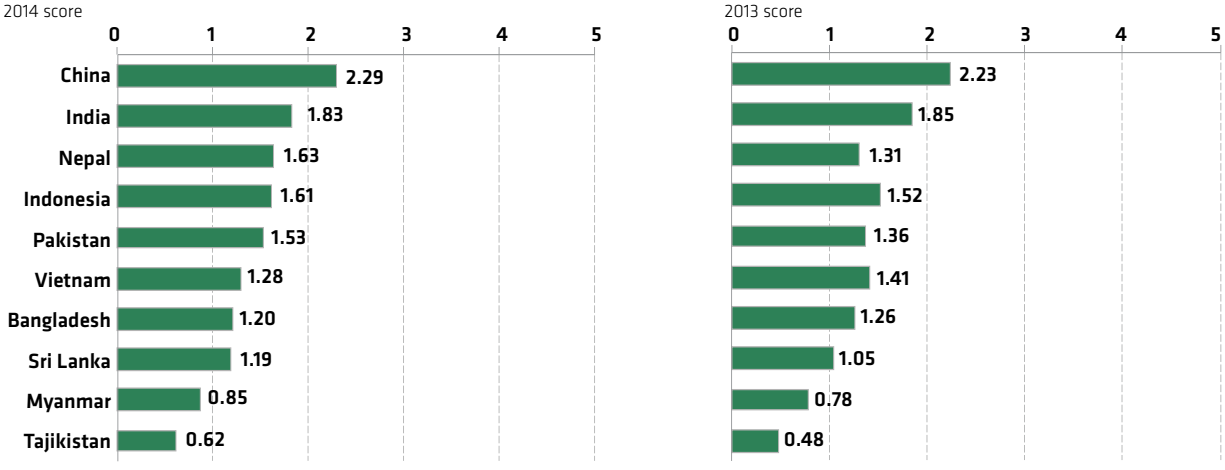
As wide-ranging as Asia's human capital resources for clean energy, are its physical resources. Mountain ranges and deserts, as well as large areas with sparse population, mean that much of Asia is well-suited to deploying clean energy at scale. Some countries, in particular China, have converted this potential into meaningful energy production – as of last year, China's wind energy production exceeds its nuclear energy production and places it third behind coal and hydro in total power generation. Other countries, including smaller markets such as Nepal and Tajikistan, remain largely potential markets, with actual clean power generation now only a small fraction of what could be. Tropical regions too, in Vietnam and Indonesia, have excellent potential for developing biomass in an environmentally sustainable fashion.

This is the second year in which the Global *Climatescope* methodology has been used to examine activity in Asian nations. In reiterating the methodology, several notable developments emerge.

The first is that some countries have substantially enhanced their policy supports for clean energy. Myanmar, in particular, is emerging from decades of state control in its power sector to allow private sector investment. Likewise, major reforms in India brought by the Modi administration bring hope of quicker deployment for the country's eager renewable energy developers.
The second observation is that Asia remains the tops among the regions examined for *Climatescope* as a hub for manufacturing. In 2013, Asia *Climatescope* countries performed particularly well in the clean energy value chain, which is not surprising given population bases and increasingly sophisticated industrial networks in China, India, and Pakistan. In 2014, *Climatescope* analysis deepens the understanding of these value chains and their strengths and comparative advantages. Large countries beget complete value chains, but industrial policies in support of export also bring countries into global trade in clean energy goods and services.

Finally, the newly concerted efforts to remedy local pollution issues – and not just global climate change impacts – in Asia's urban areas provides a new impetus for investment in low-carbon power generation and environmental goods and services. China's "war on pollution" and similar efforts in India are not only a health imperative – they are a bright opportunity for investment.

CLIMATESCOPE ASIA SCORES, 2014 AND 2013



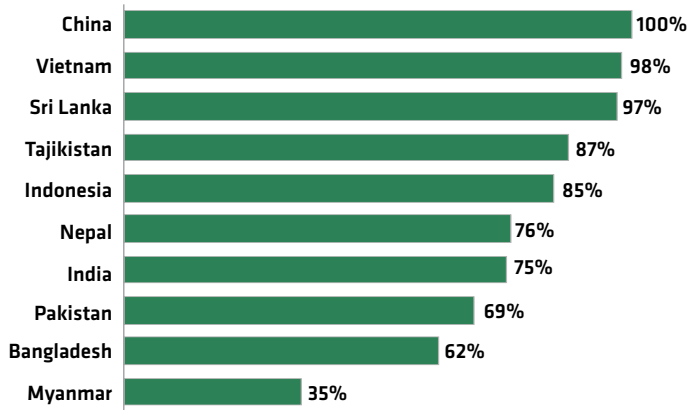
Source: Bloomberg New Energy Finance

ENABLING FRAMEWORK PARAMETER I

Asian countries had a range of performance on Global *Climatescope* Enabling Framework Parameter I. This includes 22 indicators that between them account for a country's policy and regulatory frameworks, levels of clean energy penetration, level of price attractiveness for clean energy development, and the expectations for how large the market for clean energy can become.

Last year, there were a number of notable developments in country and state/provincial enabling frameworks for *Climatescope* Asia. The first is the marked strengthening of scores from two countries, India and Nepal, thanks to government policy moves. The goal of providing round-the-clock power to India's 1.25bn people created major investor interest in the country, but just as importantly, a strengthened energy minister overseeing coal, power, and "new and renewable" energy sectors could streamline planning and permission. India also has an ambitious solar target of 100GW of solar by 2022, implying 12GW of new solar power built every year. Another was marked increases in electrification in Indonesia and Myanmar. Indonesia increased its grid-connected electrification rate by four percentage points (from 80.5% to 84.5%) as did Myanmar (31% to 35%).

ELECTRIFICATION RATES BY COUNTRY



Source: IEA

In *Climatescope* 2015, China (1.54) and India (1.51) were the strongest countries in Parameter I, as they were last year. As vast as they are, in both countries a number of regions outperformed their national scores. One third of Chinese provinces, and 60% of Indian states, had scores above their national averages. As in 2013, remote but resource-rich regions such as Xinjiang and Tibet in China, and Rajasthan in India, score highly.

As last year, Sri Lanka (0.89), Tajikistan (0.86), and Myanmar (0.84) had relatively low scores – though all countries improved their global ranking significantly. Tajikistan jumped 11 places, from 52nd to 41st, and Sri Lanka rose nine places from 49th to 40th. Myanmar's government amended regulations which had not altered in decades, which helped attract foreign investor interest in its power sector. Myanmar is also pursuing a number of rural electrification programs which are overseen by private investors and non-profits. Pakistan, too, initiated new policies to incentivize solar power generation and has proposed a net metering policy to benefit domestic, commercial, and industrial producers of wind and solar power from projects under 1MW of capacity.

Climatescope Asia countries remain a very mixed story on electrification. China completed its electrification effort more than a decade ago; India still has hundreds of millions without reliable access to the grid. Low electrification rates, as in Bangladesh, Myanmar, or Pakistan, are a hindrance to development. At the same time, remedying those low electrification rates is an opportunity for capacity and value-chain building in countries considered "off-grid". Likewise in Indonesia, with relatively high electrification but with thousands of small islands still largely dependent on diesel power, newly increased feed-in tariffs for small hydropower and fiscal incentives for geothermal could attract and enable new clean energy investment.

CLEAN ENERGY INVESTMENT & CLIMATE FINANCING PARAMETER II

Asia excels in Clean Energy Investment & Climate Financing Parameter II, which accounts for the amount of clean energy capital a country attracts, the availability of local funds, the local cost of debt, and green microfinance activity through a total of 14 indicators.

In 2014, China placed first amongst the 10 Asia *Climatescope* countries, but in 2015 Nepal had the highest score, of 1.68 thanks to a very strong growth in clean energy investment. China placed second, with a score of 1.46, and Indonesia third with a score of 0.88. Bangladesh, which scored second in 2013, placed fifth with a score of 0.66. Tajikistan had the lowest score in Asia, with 0.14.

China's second-place score obscures its provincial-level performance. Qinghai, a sparsely populated, windy, sunny, high-altitude province in western China, had the highest score in Asia with 1.90. Gansu, with similar resources, ranks behind Nepal but ahead of the rest of China as well. In India, Madhya Pradesh's score of 1.54 places that state ahead of China.

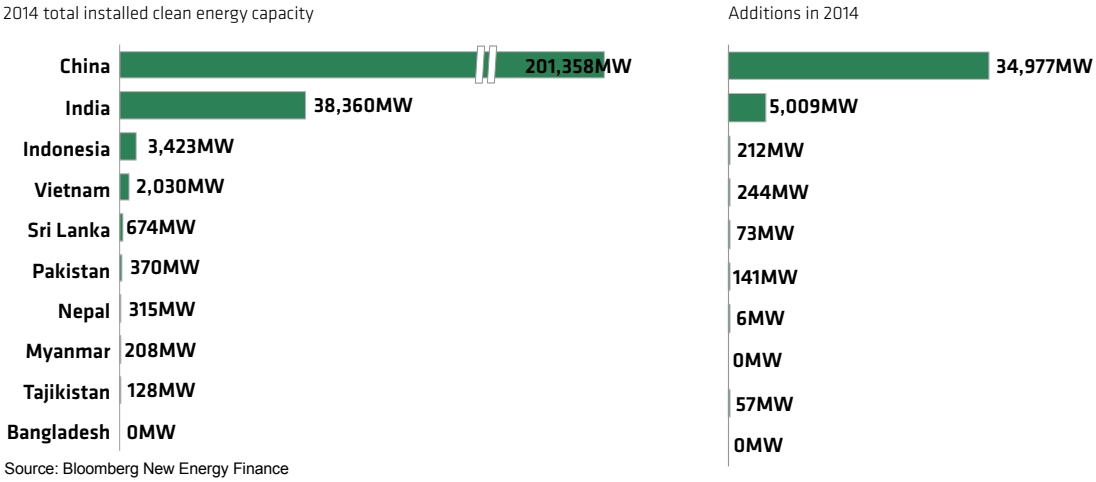
In terms of total investment, China likewise excels – it is only its vast electricity system which makes its capacity expansions small in comparison. While China's total dollars invested, and capacity installed, are world-leading, investment must be understood in context and within the methodology of Global *Climatescope*. As the world's second-largest economy and its largest electricity system, China's clean energy invested dollars are a relatively small as a proportion of GDP.

China added nearly 35GW of new clean energy generation capacity in 2014, which is nearly six times more than the rest of all *Climatescope* Asia countries put together. India added 5GW of clean energy generation capacity.

On a proportional basis, some countries with smaller non-large hydro clean energy capacity added nearly as much renewable energy generation capacity as did China. India, Vietnam, and Sri Lanka all added more than 10% to their installed non-large hydro clean energy capacity base. Pakistan, installing 141MW of capacity, increased its clean capacity by 62%, while Tajikistan nearly doubled its clean capacity by adding 57MW of new projects.

The Asian countries studied in *Climatescope* have a wide range of capital availability. China's capital markets for clean energy extend from private venture capital to asset finance from state-sponsored banks. India has active financial markets but high costs of capital, as well as high costs to swap currency risks. Indonesia has introduced a geothermal drilling fund which helps develop its superb natural resources, and Vietnam Development Bank provides for loans for renewable energy as well. Bangladesh continues to excel in green microfinance mechanisms suited specifically to off-grid clean energy projects, in particular solar PV.

CLIMATESCOPE ASIA CLEAN ENERGY CAPACITY



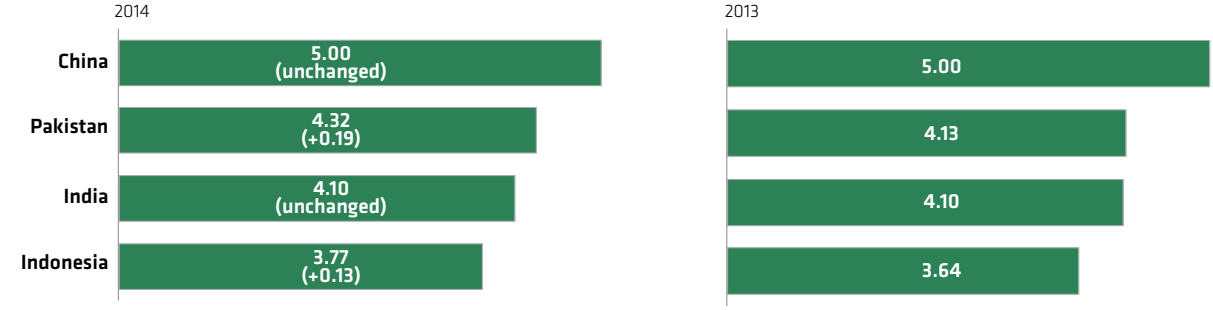
Source: Bloomberg New Energy Finance

LOW-CARBON BUSINESS AND CLEAN ENERGY VALUE CHAIN PARAMETER III

Asian countries performed exceptionally well in Low-Carbon Business and Clean Energy Value Chains Parameter III, which assesses the ability of local manufacturing and other capacity to spur clean energy deployment through five indicators. These parameters account for the presence of local manufacturers, service providers and, in the case of lesser-developed nations, players participating in facilitating the growth of distributed generation.

Asia truly excels in Low-Carbon Value Chain Parameter III, with three countries scoring above four and 16 total countries and regions scoring above 2. China leads with a perfect score of 5.000, meaning that its manufacturing and service firms cover every aspect of the clean energy value chain. Pakistan scores next at 4.32, then India at 4.10. Indonesia is next, at 3.77. China's score was could not improve from last year, and India's is stable, but both Pakistan and Indonesia increased their already high scores from 2013.

CLIMATESCOPE ASIA VALUE CHAIN COMPLETENESS, 2014 AND 2013



Source: Bloomberg New Energy Finance

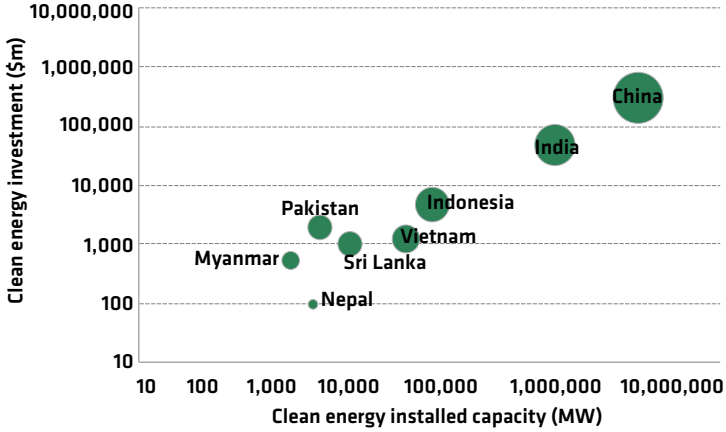
Asia's dominance in Parameter III is a function of population. The four countries with the highest scores all have populations exceeding 200m; two have populations greater than 1bn. Large populations (and with the exception of China, large and growing populations) create a number of factors to create these high scores. The first is an internal need for new power generation capacity, which pulls firms into the energy value chain – particularly evident in Pakistan, India, and Indonesia. Low electrification rates and irregular electricity supply impose high costs on growing economies…at the same time that they create a clear business case for technologies and businesses to relieve those costs.

The second factor is the ability to leverage a large and increasingly skilled workforce for export-driven industries, as is notably the case in China. India is also beefing up its value chain, not just in manufacturing but also in services.

China's and India's states and provinces, however, score very differently than each large country does on its own. Each country's wealthier and more industrialized areas have high scores for value chains – while their less-developed areas have low scores. Inner Mongolia, the heart of China's wind industry, has a nearly-complete clean energy value chain (4.75) while remote Tibet has a very low score (only 0.25). India has a more tightly grouped clean energy value chain than China. Its highest state score is in relatively developed Tamil Nadu (2.40), which would rank second from bottom in China; however, its lowest score in Madhya Pradesh (0.72) is much higher than Tibet's very low score. Remote sites which are often ideal for clean energy asset deployment, are not often home to thriving value chains beyond engineering and operations and maintenance.

Value chain completeness also correlates highly total deployed capital for clean energy, and total installed capacity.

CLIMATESCOPE ASIA VALUE CHAIN COMPLETENESS, COMPARED TO INSTALLED CAPACITY AND INVESTMENT



Source: Bloomberg New Energy Finance
Note: Larger bubbles indicate more complete value chains. China has a perfect score of 5.00 for value chains. Tajikistan (no large-scale renewable energy investment) and Bangladesh (no large-scale capacity) are excluded.

GREENHOUSE GAS MANAGEMENT ACTIVITIES PARAMETER IV

Asian countries had a wide range of scores in Greenhouse Gas Management Activities Parameter IV, which takes into account carbon offset project activity, the level of policy support for carbon emissions reduction, and local corporate awareness of carbon issues.

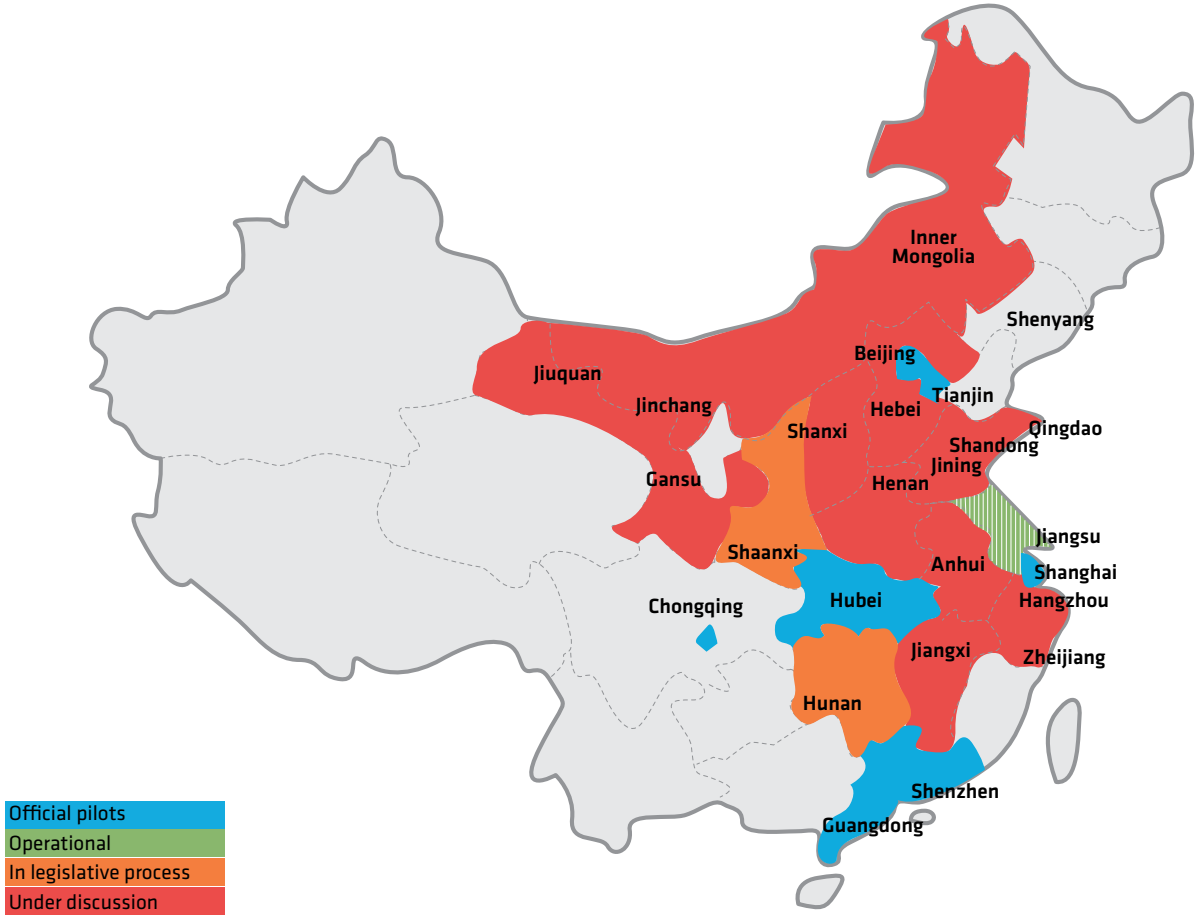
Despite no countries in the region signing the Kyoto global emissions protocol, Asia performed quite well on Parameter IV. China performs best with a score of 3.24, higher than its score last year and good for first place in the global rankings. India was second, with a score of 2.60, slightly lower than last year and good for eighth in the global rankings. Bangladesh, Sri Lanka, and Myanmar had the lowest scores.

Given that these countries are exempt from formal GHG emissions targets, their low scores are not surprising. At the same time, there are is an increasingly robust – and high-level – interest in voluntary emissions reductions at the state and regional levels in Asia. China continues to roll out its provincial emissions trading schemes in pilot, and last year developed interim measures for a national Emissions Trading Scheme (ETS). Many countries, China and Vietnam among them, also host Clean Development Mechanism (CDM) projects.

Perhaps most importantly for *Climatescope* Asia countries, 2014 was a watershed year in acknowledging the costs of particulate air pollution, and not just the global warming impacts of carbon dioxide. China's premier, Li Keqiang, famously stated that China would "declare war on pollution as we declared war on poverty". India's Prime Minister, Narendra Modi, also announced plans to make city air quality data available through an index simple enough for the general population to understand.

For Asia, and indeed for any developing region or country, clean energy, greenhouse gas emissions, and local air quality are converging as development drivers.

CHINA'S ENVIRONMENTAL MARKETS AND THEIR STATUS



Source: Bloomberg New Energy Finance, government announcements
Note: Jiangsu is striped to indicate that it is an energy savings programme

LATIN AMERICA & THE CARIBBEAN REGIONAL SUMMARY

About 100 kilometers (60 miles) north of Progresso, Mexico, five small islands stand amidst the largest coral structure in the southern Gulf of Mexico. These images of Arrecife Alacranes—Spanish for "Scorpion Reef,"—were acquired on November 5, 2014, by the Operational Land Imager (OLI) on Landsat 8. The top image shows the central part of the reef, while the bottom image shows the rest of the formation.

OVERVIEW

Renewables, non-inclusive of large hydro generation, are at the core of Latin America and the Caribbean's (LAC) power matrices. The region boasts higher clean energy penetration than any other region assessed on Climatescope. As of year-end 2014, 11% of the 352GW installed in Latin America and the Caribbean (LAC) was represented by biomass, wind, small hydro, solar and geothermal power-generating projects. When large hydro plants are included, over half (56%) of LAC's matrix is accounted for by non-CO2 emitting power generating sources.

There are several explanations for this high penetration. Perhaps most importantly, the region has exceptional natural resources, which make biomass, geothermal, hydro, solar and wind projects all the more cost competitive. Historically, the region has taken extensive advantage of its hydro and biomass potential but recent years have seen an uptick in wind and solar activity as costs associated with those technologies have dropped. In fact, in several countries in the region, wind and solar projects have reached "grid parity" meaning they are now the best, low-cost option for new generation. In Brazil, for instance, new wind power supply contracts have been signed at rates far below those offered from new natural gas or coal plants. In Chile, corporates have turned to power from solar projects, to access the most affordable energy available.

Renewables growth is also due to rising awareness among governments and planning agencies about the importance of diversifying energy supply sources. This has resulted in more clean energy-friendly policy-making. Of 26 Latin American and Caribbean nations surveyed in *Climatescope*, 10 have adopted targets seeking certain rates of clean energy consumption/generation. In addition,12 Latin American countries have held or plan to hold "reverse auctions" to sign power delivery contracts with clean energy project developers. The surge of renewables in Central and South America can largely be attributed to these policies.

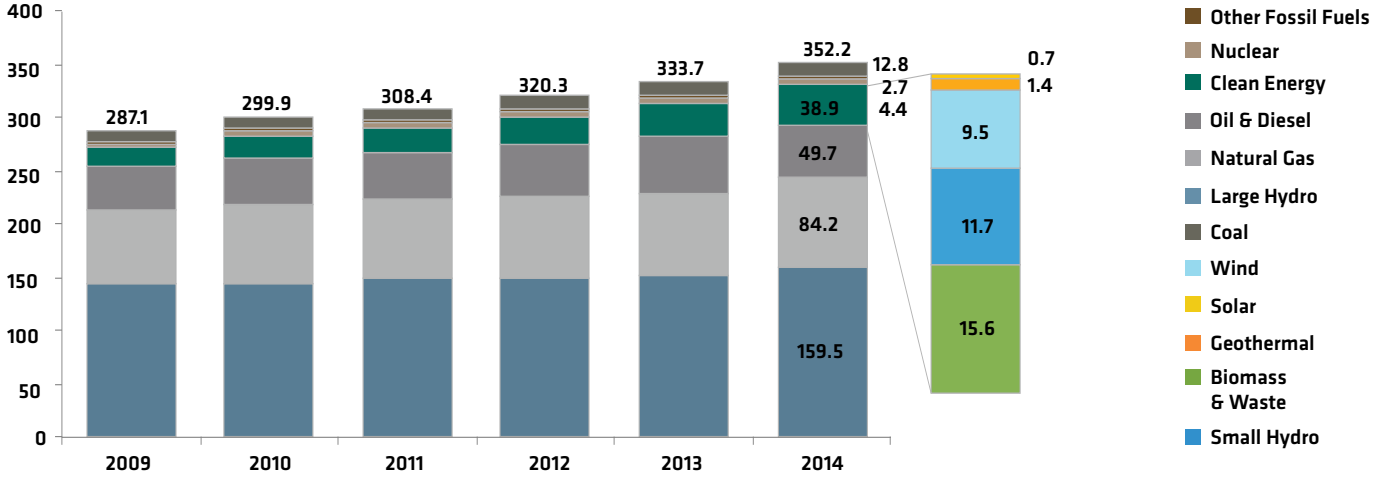
This marks the fourth consecutive year *Climatescope* has analyzed the attractiveness of LAC's markets for clean energy development and the progress achieved to date has been notable. At the end of 2011, there was 23GW of non-large hydro clean energy capacity installed in the region and much of that had been online for years in the form of small hydro and biomass projects. As of year-end 2014, that number had almost doubled to 39GW, including a larger share of sources such as wind and solar.

Investment has grown as well, albeit somewhat inconsistently. In 2011, the region attracted $20bn for clean energy projects and in 2014 that totalled $23bn. There were bumps along the road, however. In 2013, investment was a comparatively smaller $15.4bn.

The LAC region encompasses two hemispheres and includes a highly heterogeneous set of nations. Unsurprisingly, conditions and opportunities vary widely between countries. Most activity to date has focused on the larger economies, but some smaller countries have also shone. In this year's Global Climatescope overall ranking, four Latin American countries are in the top 10: Brazil, Chile, Mexico and Uruguay.

In a sense, the appearance of these countries near the top of the table should come as little surprise. Brazil has been a regional leader in renewables development over the past four years and in spite of its economic slowdown, the clean energy sector continues to thrive in the country. Chile has emerged as a solar leader, first with "merchant" projects that do not sign long-term supply contracts, but instead sell their power on the country's liberalized spot market. The country has more recently held auctions for clean energy to be delivered at individual time blocks when that power is needed most.

INSTALLED POWER CAPACITY AND CLEAN ENERGY CAPACITY BY SECTOR (GW)



Source: Bloomberg New Energy Finance

In Mexico, energy reform is creating new opportunities for private generators and further clean energy build-out. Thanks to its auction system, Uruguay should end 2015 with almost 30% of its installed capacity represented by wind. Finally, Honduras has implemented a generous feed-in tariff that has driven a rush of developers to build 300MW of solar PV capacity in a country of 8.1m.

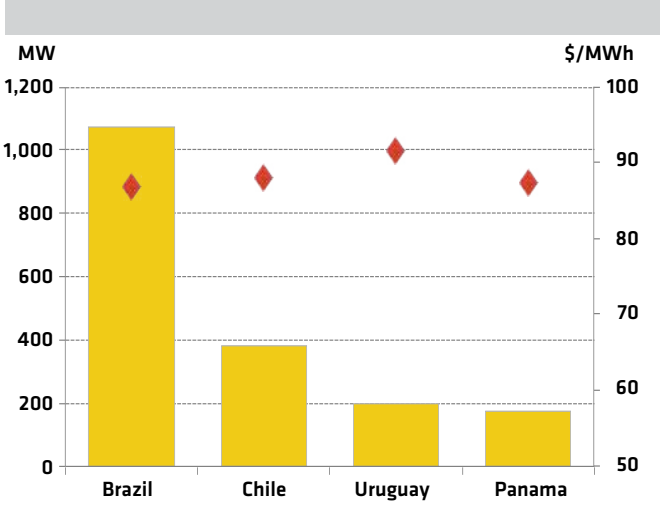
ENABLING FRAMEWORK PARAMETER I

Climatescope's Enabling Framework Parameter I assesses what has been deployed in a country (by looking at installed clean capacity and biofuel production levels), mechanisms in place that can facilitate future deployment of renewables (policies and power sector structure) and fundamentals that help size the market (electricity prices, power demand and electrification rate).

The top five scoring countries on this parameter – Uruguay, Brazil, Chile, Nicaragua and Costa Rica – have one major point in common: all have a high penetration of renewables in their matrix. Uruguay comes out tops due to a high policy score and fast growth of new clean energy capacity.

In 2014, Latin American and Caribbean countries did not introduce a particularly large number of new policy mechanisms to support clean energy. However, they did take key steps toward getting policies already on the books implemented. Among the key 2014 policy developments, Mexico continued to finalize its overall energy reform, Colombia published its renewable energy law, and Honduras implemented a feed-in tariff scheme at $180/MWh which attracted great industry interest. Finally, Brazil, Chile, Jamaica, Panama, and Uruguay all contracted biomass, small hydro, wind and solar projects through reverse auctions for power contracts. In the chart below we highlight examples of auctions held in the past two years, showcasing the prices and contracted capacity. For a complete list of policies, access the policy library available at www.global-climatescope.org.

2014 SOLAR AUCTIONS IN LATIN AMERICA, CAPACITY CONTRACTED (MW) AND AVERAGE CONTRACT PRICE ($/MWh)



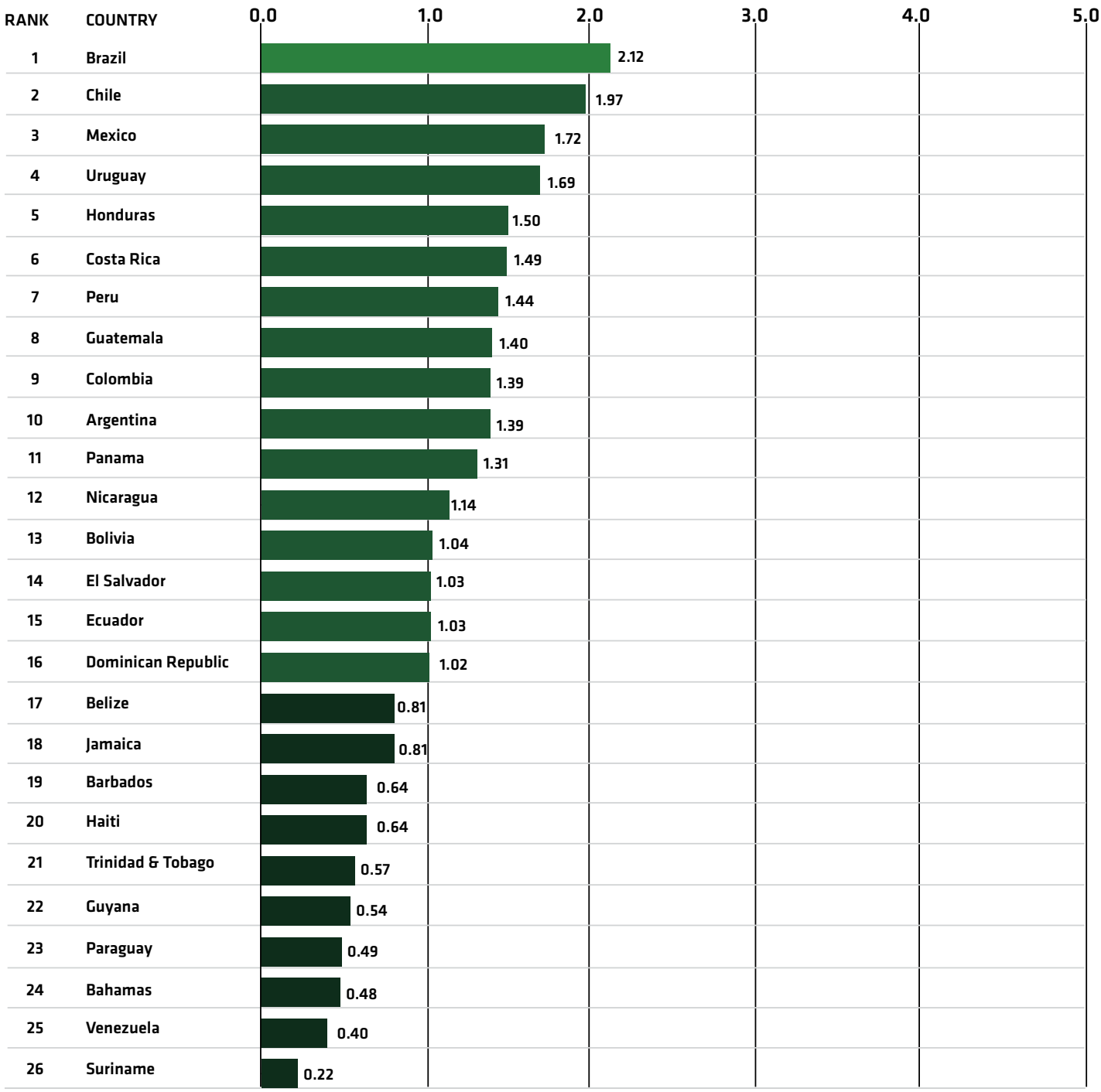
Source: Bloomberg New Energy Finance
Note: In Chile and Panama, capacity is estimated based on the contracted generation (GWh).

Stable policy frameworks and standardized contracting mechanisms such as auctions and feed-in tariffs facilitate the deployment of renewables. Last year, a total of 39GW was installed in the region, and 7.7GW of new clean energy capacity was added. Two important milestones were achieved in 2014: solar surpassed the 0.5GW installed mark and wind reached almost 10GW of capacity.

The international oil price collapse was one of the major events buffeting Latin America and the Caribbean's energy sector overall as the benchmark price of Brent crude fell from $110 to $57/barrel. The impact was felt most acutely in oil-producing countries Brazil, Ecuador, Mexico and Venezuela, which all generated lower revenues as a result.

Specifically in regard to clean energy, the impact of the oil price drop was relatively muted in Latin America in 2014. Wholesale spot prices for electricity, which can correlate with oil prices (since fossil-fuelled plants typically are the most expensive on the grid), did not fall significantly over the course of the year. The average fell just 5% to $53/MWh from an average of $57.8/MWh in 2013. Cheaper oil's impact could be felt more strongly felt in 2015, however, with merchant clean energy projects potentially the most exposed since such projects rely on high spot prices to achieve investor returns.

2015 Global Climatescope scores
Latin American and Caribbean ranking

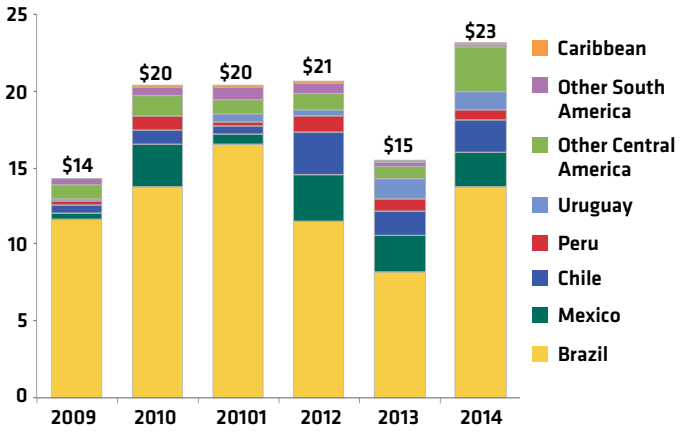


Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

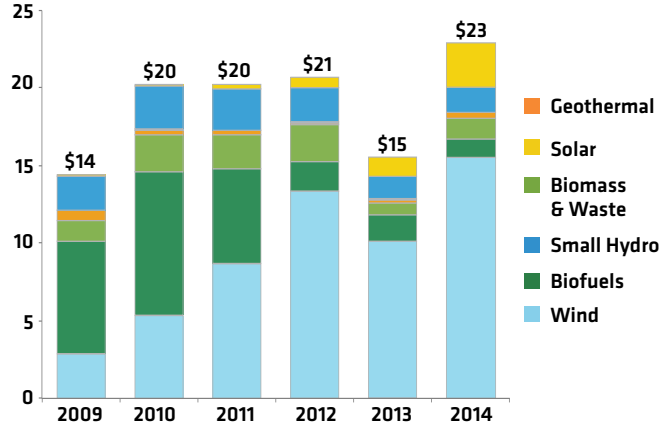
CLEAN ENERGY INVESTMENT & CLIMATE FINANCING PARAMETER II

LATIN AMERICA AND CARIBBEAN INVESTMENT IN CLEAN ENERGY BY COUNTRY, 2009-2014 ($bn)



Source: Bloomberg New Energy Finance

LATIN AMERICA AND CARIBBEAN INVESTMENT IN CLEAN ENERGY BY SECTOR, 2009-2014 ($bn)



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

The Clean Energy Investment & Climate Financing parameter looks at investment levels to date for large- and small-scale projects, by mapping fund flows to new plants, while also tracking mergers and acquisitions, grants and microfinance activity.

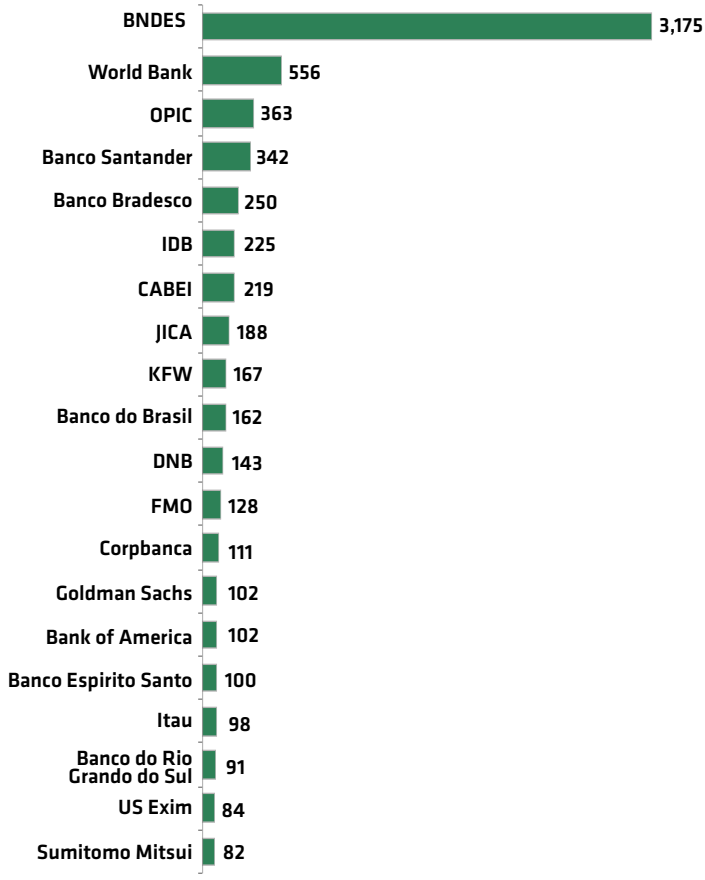
Countries that scored best on this parameter all saw surges of investment in 2014: Honduras, Bolivia, Guatemala, Panama and Chile. In Bolivia's case, the country attracted $41m, representing a major jump from the $7m invested in 2013.

Overall in 2014, investment levels across the region for non-large hydro clean energy bounced back, spiking 49% compared to 2013, when $15bn was deployed. Among the main destinations for investment were: Brazil, which attracted more than half of the funds at $14bn, along with Mexico ($2bn) and Chile ($2bn).

In addition, there was a slew of countries that saw investment-surge disproportionately in 2014. This included Panama ($839m in 2014, up from $172m in 2013), Honduras ($823m vs. $74m) and Guatemala ($702m vs. $84m). In other countries, activity began to slow in 2014 after being particularly brisk in the prior year. Uruguay, for instance, attracted an impressive $1bn in 2014, though that was slightly down from the year prior. Smaller countries usually see a more intermittent pattern of investment due to the size of their grids.

In terms of technologies supported, the trends seen in 2013 continued into 2014. Wind remains the main clean energy sector in LAC, attracting $15.5bn in investment with Brazil, Mexico, Panama and Uruguay taking the lion's share of the total. The solar sector attracted a record $2.8bn in 2014, largely due to PV projects in Chile and Honduras.

TOP 20 LATIN AMERICA AND CARIBBEAN CLEAN ENERGY INVESTORS, 2014 ($m)



Source: Bloomberg New Energy Finance

Climatescope also maps out the sources of funds, classifying investors as local or foreign. Funds coming from local investors rose in 2014, although more modestly than in the prior year, rising to $5.3bn from $4.5bn in 2013. In terms of the top 20 clean energy investors in 2014, Brazil's National Development Bank again provided the most and is among the major clean energy investors globally. Other regional development banks also appeared on the list, including the Central American Bank for Economic Integration. Among the international development banks and agencies, the World Bank, Inter-American Development Bank, Japan International Cooperation Agency and KfW all played important roles. Finally, it is worth noting the participation of private commercial banks such as Spain's Santander, Brazil's Bradesco and Itau and Chile's CorpBanca.

LOW-CARBON BUSINESS AND CLEAN ENERGY VALUE CHAIN PARAMETER III

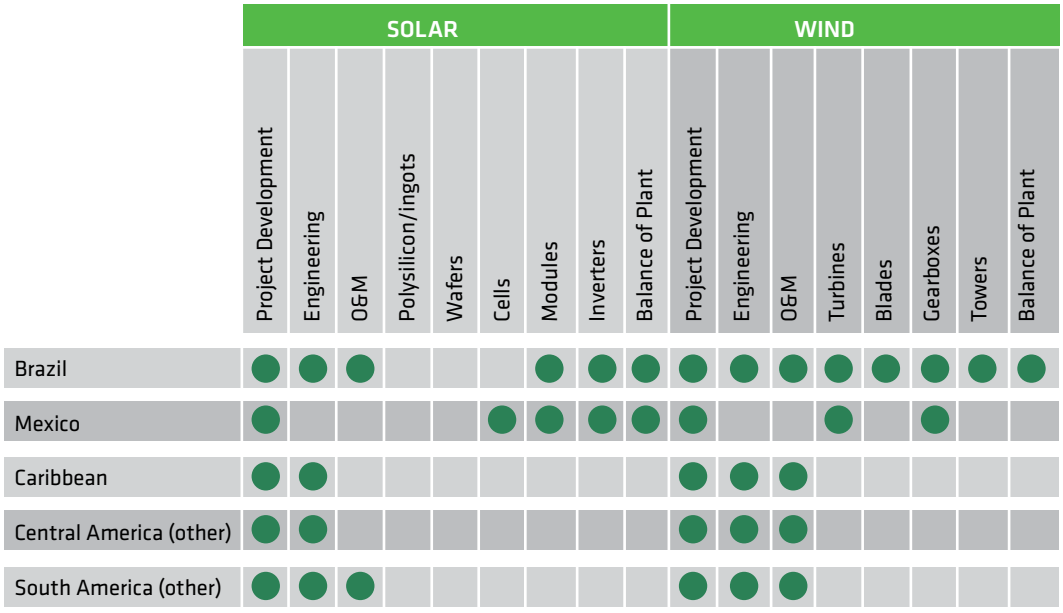
The Low-Carbon Business and Clean Energy Value Chain Parameter III examines the types of companies that provide services or manufacturing equipment for the clean energy industry. This parameter also includes a set of off-grid indicators that only applied to Haiti, as the country is the only nation considered 'off-grid' under *Climatescope's* methodology. (For more on how this determination was made, please see the complete *Climatescope* methodology).

As in prior editions of *Climatescope*, the leading countries in this parameter also coincided with some of the largest economies in the region. Brazil and Mexico achieved the highest scores thanks to the size of their economies and renewable energy markets. However, the robustness of Brazil's value chain is also helped by the country's "local-content" rules requiring developers to use locally-sourced equipment to access Brazil's development bank loans for clean energy projects.

In Mexico, the drivers are somewhat different. While the country does have import tariffs on foreign-made PV equipment, some equipment manufacturers based in the country also seek to export into the US market.

Most of the other countries in the region have developers, engineers and builders present in the six sectors assessed under Parameter III: biofuels, biomass & waste, geothermal, small hydro, solar and wind. In Haiti, where the electrification rate is quite low and most of the population still relies on distributed forms of electricity generation, there is a significant opportunity for small-scale renewable systems. Climatescope tracked various companies on the island providing small lighting and energy systems from solar, biomass and mini-hydro.

LATIN AMERICA AND CARIBBEAN SOLAR AND WIND VALUE CHAIN



Source: Bloomberg New Energy Finance

GREENHOUSE GAS MANAGEMENT ACTIVITIES PARAMETER IV

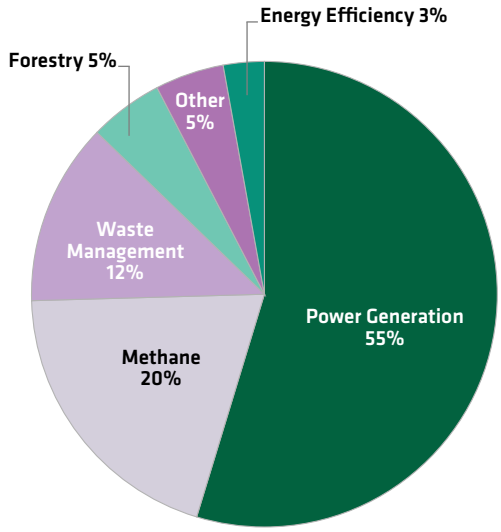
The Greenhouse Gas (GHG) Management Activities Parameter IV examined country-, corporate- and project-level initiatives to reduce GHG emissions by countries. Larger economies typically score best on this parameter as their level of emissions is higher and thus they require more projects to be in place to offset these. In addition, larger countries have a greater number of large corporates operating, including both national and international firms. The top five highest scoring countries on Parameter IV include Brazil, Chile, Mexico, Colombia and Uruguay – the same countries that scored best in last year's ranking with small changes in positions among them.

Climatescope recorded eight countries in Latin America and the Caribbean with some form of emission reduction target in place: Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Jamaica, Mexico and Peru.

In Latin America and the Caribbean, there is a total of 1,160 GHG emission reduction projects registered under three standards: Clean Development Mechanism (CDM), Verified Carbon Standard (VCS) and Gold Standard (GS). This number barely increased from the 1,128 registered in 2013. However, there was greater involvement of Nationally Appropriate Mitigation Actions (NAMAs) projects. In 2014, 11 Latin American and Caribbean countries had NAMA projects under preparation or already being implemented, compared to 10 in 2013.

LATIN AMERICA AND CARIBBEAN GREENHOUSE GAS OFFSET PROJECTS BY SECTOR

1,128 GHG projects

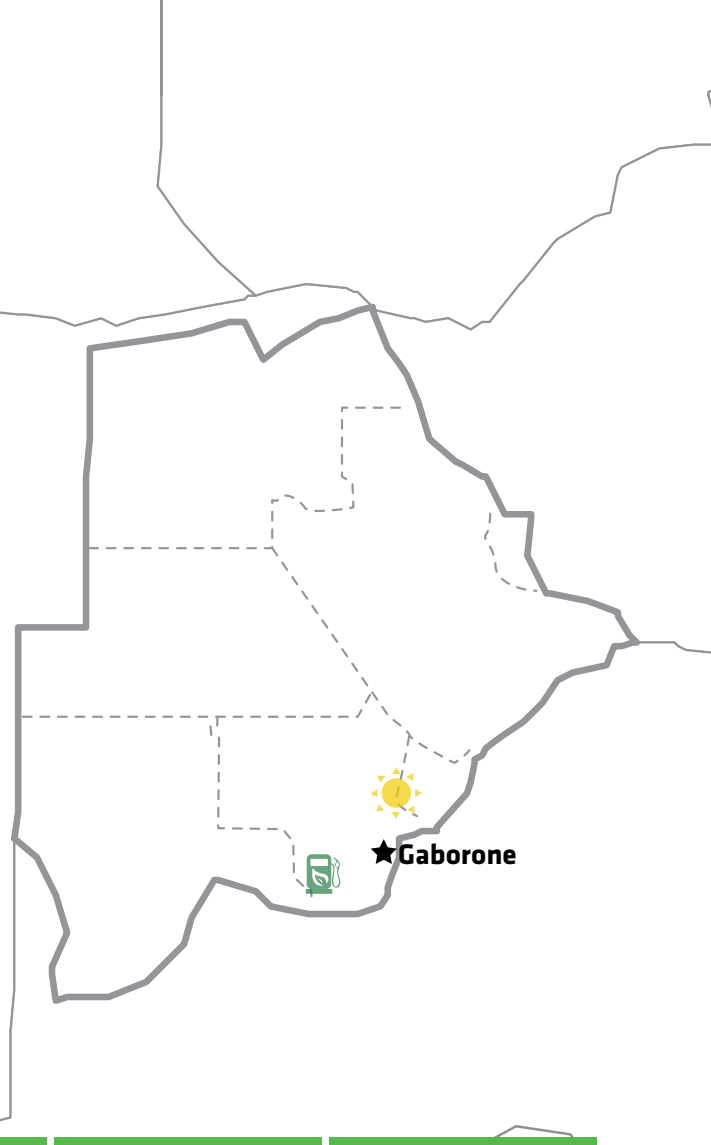


Source: UNEP Risoe, Bloomberg New Energy Finance

AFRICA COUNTRY PROFILES

Heavy rains fell across southern Africa in early 2011. By early February, river flooding in South Africa alone had killed 91 people and caused over $100 million in damage, the United Nations stated. Times Live reported that the government had issued flood warnings for areas along the Orange, South Africa's longest river.

Botswana



GDP: **$15.8bn**
Five-year economic growth rate: **4.3%**
Population: **2.0m**
Total clean energy investments, 2009-2014: **$6.0m**
Installed power capacity: **293.0MW**
Renewable share: **0.4%**
Total clean energy generation: **2.6GWh**
Top energy authority:
Ministry of Minerals, Energy and Water Resources

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
48	47	0.59

PARAMETER	RANKING	SCORE
I. Enabling Framework	49	0.60
II. Clean Energy Investment & Climate Financing	35	0.37
III. Low-Carbon Business & Clean Energy Value Chains	34	1.22
IV. Greenhouse Gas Management Activities	50	0.36

SCORE SUMMARY

Botswana scored 0.59 in *Climatescope* 2015, placing it 47th on the list of countries overall, one place higher than in 2014. The country's highest score was on Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Enabling Framework Parameter I, the country dropped six places to rank 49th. On the whole, its policy and regulatory environment scored weakly, though it does have some energy access policies in place.

The country finished 35th on Clean Energy Investment and Climate Financing Parameter II. There has been little investment in the sector to date, though financing conditions are more favourable than others in the region.

On Parameter III, Botswana was placed 34th, partly reflecting the presence of a number of distributed clean energy service providers.

On Greenhouse Gas Management Activities Parameter IV, the country was ranked 50th. Modest inroads are being made in the area of corporate awareness.

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

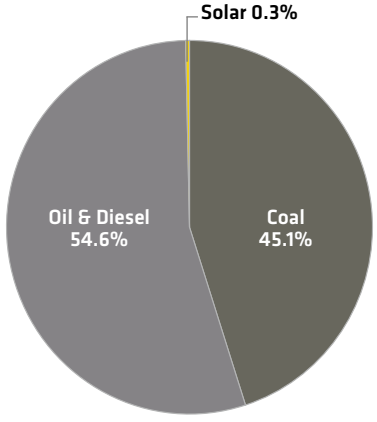
OVERVIEW

Botswana's outdated power sector relies on coal for 60% of its generation, while approximately one-third of the population lacks access to electricity of any kind. The country's 600MW peak demand is met through importing electricity from surrounding countries when available (roughly 200-300MW per day from South Africa) and running expensive back-up power plants.

The current policy framework provides no specific incentives for clean energy, and the impetus for implementing new policy in the near future is unclear. However, the government is crafting a national energy policy, which outlines new strategies and highlights the need for renewables to be integrated into the power sector.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

293.0MW total installed capacity



Source: Bloomberg New Energy Finance, Botswana Power Company

Botswana has considered feed-in tariffs but not yet implemented them due to limited technical capacity, the government's focus on coal expansion and the potential cost. In June 2015, the government announced it would release a tender for two 50MW solar PV plants. Renewable energy currently makes up less than 2% of the country's generation mix.

KEY POLICIES

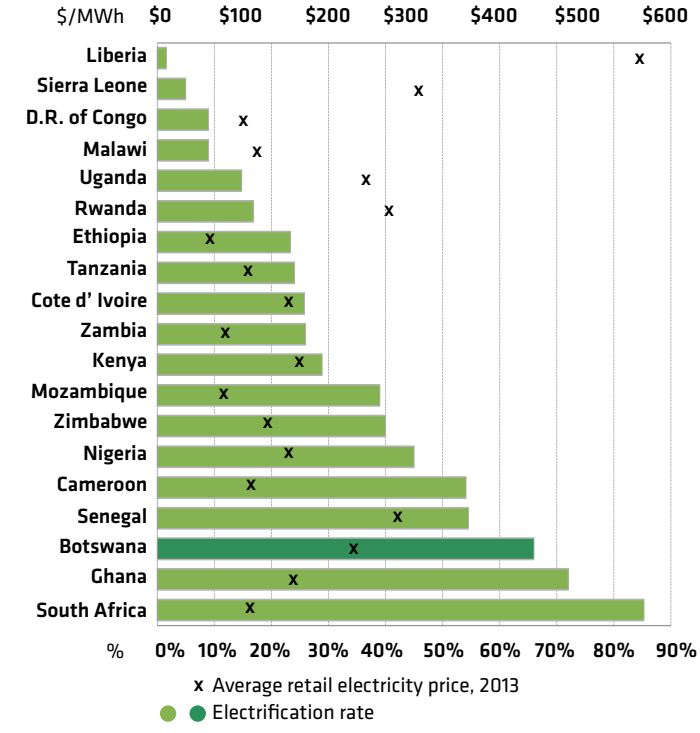
Tax Incentives	Investors in manufacturing are eligible for a range of tax reductions and import duty exemptions.

Source: Bloomberg New Energy Finance Policy Library

The vertically integrated government-owned utility, Botswana Power Corporation, runs the power system, which until 2015 had only the Morupule A 132MW coal-fired power plant. The utility has tried to bring online the 600MW Morupule B coal plant, but technical issues have delayed its full operation.

Back-up power plants include the 70MW Matshelagabedi, and the 90MW Orapa peaker plant owned by independent power producer Debswana. Meanwhile, Botswana Power Corporation has struggled financially due to the country's suppressed power prices and the cost of imported diesel. The utility has stated its intention to raise prices to match the cost of production.

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



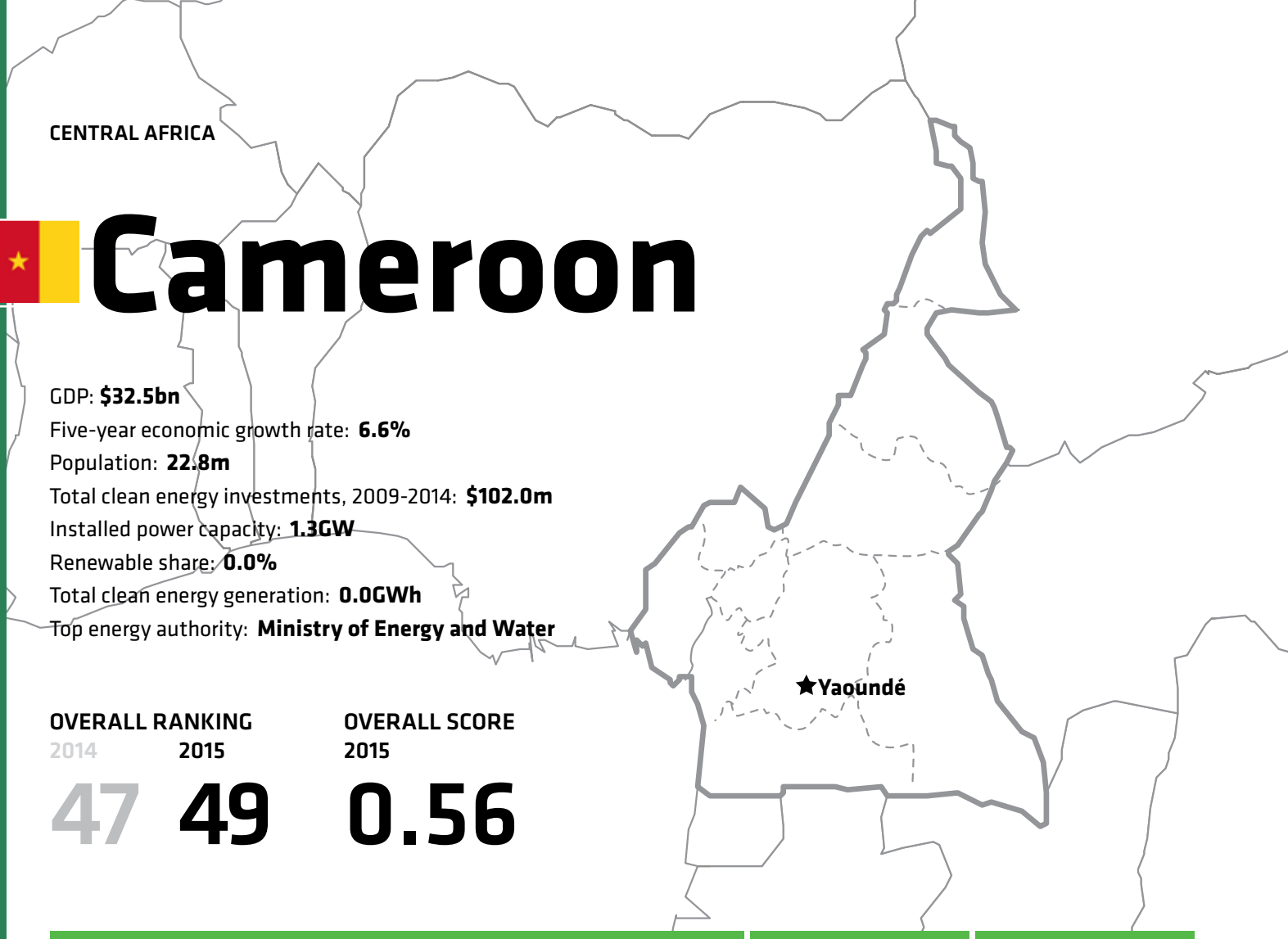
Source: Bloomberg New Energy Finance

In 2012 Japan's Itochu Corp. financed a 1MW PV plant through a $12.5m grant. The country has completed feasibility studies for a 100MW concentrated solar thermal plant and in July 2015 invited bids to build the plant. A 0.36mLpa biofuels plant was commissioned in 2006 while a $1.9m 5mLpa one is under construction. The debate over a biofuels blending mandate continues to hamper the sector's growth potential.

CENTRAL AFRICA

Cameroon

GDP: **$32.5bn**
Five-year economic growth rate: **6.6%**
Population: **22.8m**
Total clean energy investments, 2009-2014: **$102.0m**
Installed power capacity: **1.3GW**
Renewable share: **0.0%**
Total clean energy generation: **0.0GWh**
Top energy authority: **Ministry of Energy and Water**



OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
47	49	0.56

PARAMETER	RANKING	SCORE
I. Enabling Framework	47	0.65
II. Clean Energy Investment & Climate Financing	46	0.24
III. Low-Carbon Business & Clean Energy Value Chains	49	0.66
IV. Greenhouse Gas Management Activities	37	0.88

SCORE SUMMARY

Cameroon scored 0.56 in *Climatescope* 2015, placing it 49th on the list of countries overall, and above only the Democratic Republic of Congo among the African nations. The country's highest score was on Greenhouse Gas Management Activities Parameter IV.

On Enabling Framework Parameter I, Cameroon slipped one place to rank 47th. While there is no discernible installed clean energy capacity and little in the way of policy support, the country was one of the first in Africa to liberalize its power sector.

Cameroon was ranked 46th on Clean Energy Investment and Climate Financing Parameter II, unchanged from 2014. Investment in the sector to date has been scarce.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the country was placed 49th owing to the low number of value chains and service providers.

On Parameter IV, the country was ranked 37th, reflecting in particular a low failure rate among its small number of carbon offset projects.

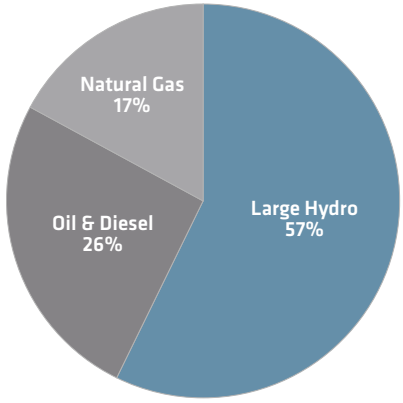
For further information, access www.global-climatescope.org/en/country/cameroon

OVERVIEW

Cameroon has the third largest hydropower potential on the continent (20GW) of which 723MW has been developed, accounting for 57% of total installed capacity. Thermal capacity accounts for the rest, including a 216MW gas power plant. The long term Energy Sector Development Plan and the Rural Electrification Master Plan have the goal to electrify 660 localities through grid extension and the development of mini-grids.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

1.3GW total installed capacity



Source: Bloomberg New Energy Finance, Cameroon Ministère de l'Eau et de l'Energie, AES-SONEL

Cameroon was one of the first countries in Africa to open its energy sector to private investment. The Electricity Law of 1998 resulted in the entry of AES as a majority shareholder of Sonel, the national utility, in 2001. The company obtained a 20-year transmission and distribution concession and owns most of the existing generation capacity.

A new phase of reform in the power sector started in 2011, with the promulgation of a new electricity law which paves the way for unbundling generation, transmission and distribution. Power purchase contracts will be signed between generators and distributors, with the transmission company being merely a transporter of electricity.

The 2011 law intends to increase private investment by allowing the development of hydropower projects by auto-producers and creating the obligation for auto-producers to sell, and grid operators to buy, a portion of the electricity produced on a cost-of-service basis as determined by the regulator. Similarly, grid operators are obliged to buy excess production from renewable energy installations.

KEY POLICIES

Utility Regulation	The 2011 law liberalizing the energy sector simplifies the approval process for rural electrification projects and contains a renewable energy purchase obligation, which is subject to a (pending) operational decree.
Tax Incentives	Investors are eligible for a range of tax reductions and import duty exemptions, including dedicated VAT exemptions for wind and solar equipment.

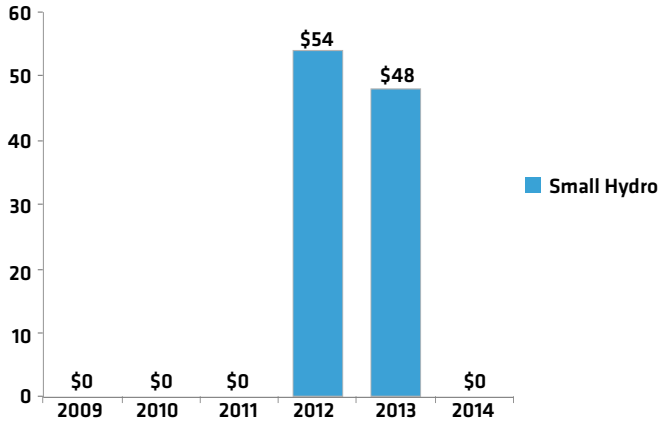
Source: Bloomberg New Energy Finance Policy Library

A law defining incentives for renewable energy generation projects is at the drafting stage. In 2014, JCM Greenquest Solar Corporation announced plans to build a 72MW PV project with the support of the African Development Bank, and Joule Africa signed a memorandum of understanding to develop a 100MW PV project. Various large hydro projects are under construction.

Renewable energy projects can qualify for various tax reductions. Subsidies for fossil fuels range from 27% of the retail price for gasoline to 101% of that for kerosene. Power tariffs are subsidized through direct budget transfers from the government to the utility.

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

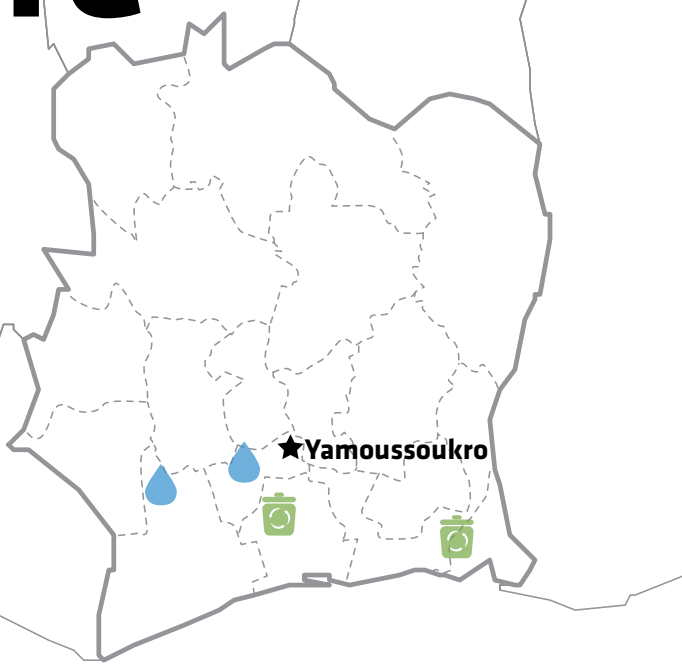
$102.0m total cumulative investment



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

WEST AFRICA

Cote d'Ivoire



GDP: **$34.3bn**
Five-year economic growth rate: **6.6%**
Population: **20.8m**
Total clean energy investments, 2009-2014: **$69.9m**
Installed power capacity: **1.7GW**
Renewable share: **2.2%**
Total clean energy generation: **185.9GWh**
Top energy authority:
Ministry of Mines, Petroleum and Energy

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
46	42	0.71

PARAMETER	RANKING	SCORE
I. Enabling Framework	29	1.19
II. Clean Energy Investment & Climate Financing	55	0.01
III. Low-Carbon Business & Clean Energy Value Chains	37	1.14
IV. Greenhouse Gas Management Activities	48	0.42

SCORE SUMMARY

Cote D'Ivoire scored 0.71 in *Climatescope* 2015, placing it 42nd on the list of countries overall. This represented an increase of four places compared with its position in 2014. The highest score was on Enabling Framework Parameter I.

The country gained three places on Parameter I to rank 29th. The structure of its power sector and its energy access policies helped to support its score.

On Clean Energy Investment and Climate Financing Parameter II, Cote D'Ivoire was placed last among the 55 nations, owing to a very low level of investment to date.

The country ranked 37th overall on Low-Carbon Business & Clean Energy Value Chains Parameter III. The presence of a small number of clean energy value chains and service providers helped to prop up its score.

On Greenhouse Gas Management Activities Parameter IV, the country ranked 48th, reflecting some activity in the carbon offsetting category.

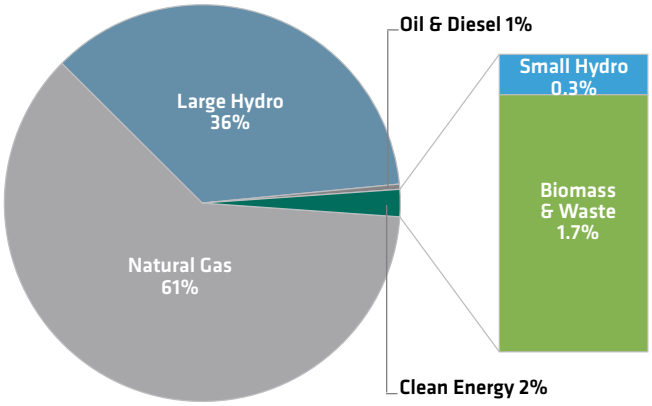
For further information, access www.global-climatescope.org/en/country/ivory-coast

OVERVIEW

Cote d'Ivoire's current installed capacity is just over 1.6GW, of which gas makes up 1GW and hydro the remainder. The country's power sector is unusual for the region in that a significant share of electricity is generated by independent power producers (IPPs). The market structure is designed to create a favourable operating environment for IPPs. The Compagnie Ivoirienne d'Electricité (CIE) operates the transmission and distribution grids under an exclusive concession granted by the Ivoirian state. The CIE is a private company, in which the government holds a minority stake, and it is responsible for collecting bills from consumers and paying the IPPs under a contractual payment structure.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

1.7GW total installed capacity



Source: Bloomberg New Energy Finance, Compagnie Ivoirienne d'Electricité

Renewable energy policy is a work in progress. A new electricity law was passed in April 2014, which opens all market segments to competition and makes it possible to feed electricity into the grid. However, the details are still being written. The government agreed in 2012 on an energy sector plan which prioritises investment in large hydro and fossil-fuelled power generation and commits the country to achieving a 5% share of renewables in final energy consumption by 2015, rising to 15% by 2020. This is unlikely to be met, with delays in the drafting of the renewables implementation decrees of the 2014 electricity law.

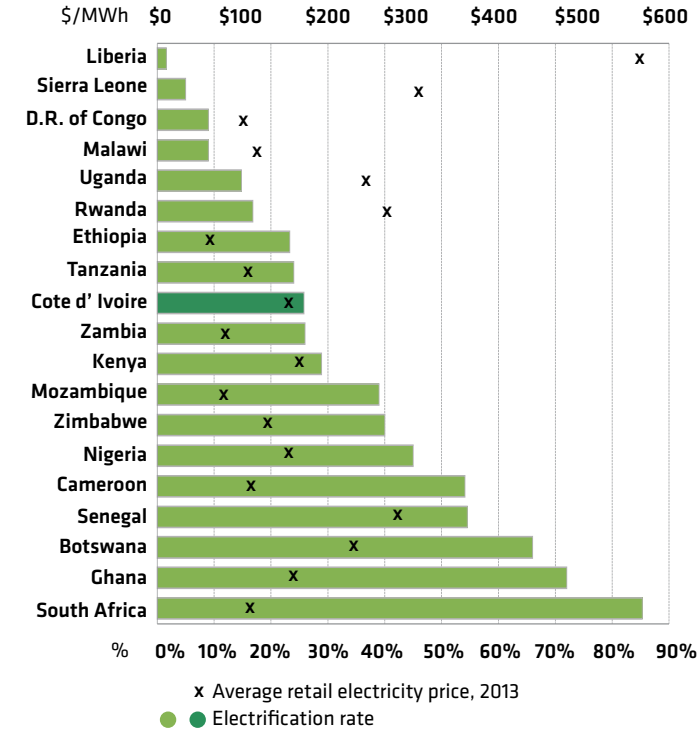
KEY POLICIES

Energy Target	Renewable energy to constitute 5% of the supply mix by 2015, 15% by 2020 and 20% by 2030. Clean energy investment target of CFA 1,717bn ($3.2bn in 2012) over 2012-30.
Auction	A call for expressions of interest in developing renewable energy projects was held in 2013. Shortlisted projects were asked in July 2014 to prepare tender documentation.

Source: Bloomberg New Energy Finance Policy Library

The government's primary policy objective is "electricity for all", which requires increasing generation capacity and extending the electricity grid. Renewable energy plays a part in this programme: the government launched small-scale tenders and is evaluating proposals for mini-grids.

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



Source: Bloomberg New Energy Finance

Other than this and a reduced rate of VAT for solar panels, there are no official incentives for renewable energy development. There is significant solar potential in the north of Côte d'Ivoire, but regulations for feeding electricity to the grid are still to be defined. Accordingly, there are no MW-scale or grid-connected plants. Existing solar installations are restricted to a few remote villages, industrial users, and rooftops of wealthier homes.

CENTRAL AFRICA

D. R. Congo

GDP: **$33.0bn**
Five-year economic growth rate: **9.9%**
Population: **69.4m**
Total clean energy investments, 2009-2014: **$198.7m**
Installed power capacity: **2.6GW**
Renewable share: **4.4%**
Total clean energy generation: **377.0GWh**
Top energy authority:
Ministry of Mines, Energy and Hydrocarbons

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
38	50	0.55

PARAMETER	RANKING	SCORE
I. Enabling Framework	50	0.55
II. Clean Energy Investment & Climate Financing	49	0.19
III. Low-Carbon Business & Clean Energy Value Chains	47	0.72
IV. Greenhouse Gas Management Activities	29	1.07

SCORE SUMMARY

The Democratic Republic of Congo (DRC) scored 0.55 in *Climatescope* 2015, slipping several places to finish 50th on the list of countries overall and last among the African nations. The country's highest score was on Greenhouse Gas Management Activities Parameter IV.

On Enabling Framework Parameter I, the DRC ranked 50th. Its score was weakened by the lack of clean energy incentives and the lack of openness in the structure of its power sector.

The country fell 29 places to take 49th position on Clean Energy Investment and Climate Financing Parameter II, partly reflecting the absence of any new investment.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the DRC finished 47th, down 16 places on 2014, with the absence of value chain players in most clean energy segments.

On Parameter IV, the country ranked 29th, scoring best in the carbon-offsetting category, in particular for the number of carbon credits generated relative to its overall emissions.

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

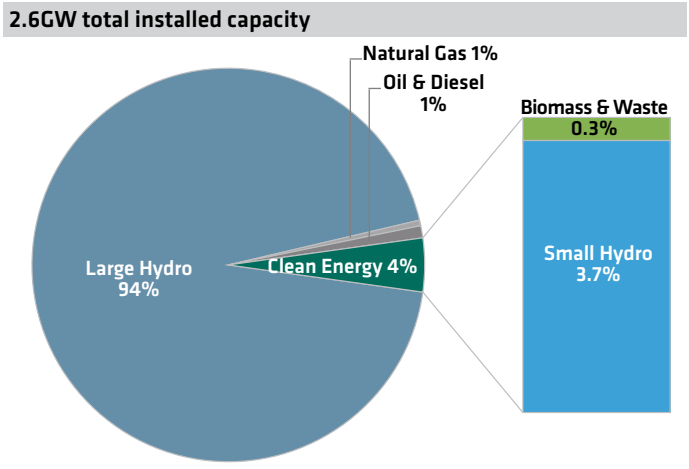
OVERVIEW

In the Democratic Republic of Congo, hydro accounts for 99% of the country's grid generation capacity. Current hydro installed capacity is 2,420MW, of which only 1,281MW is operational.

A project to develop an additional 4,800MW at the Inga 3 site and export power to South Africa is at the development stage, with support from the World Bank and the African Development Bank. The country has about 100GW of hydropower potential, the highest in Africa.

SNEL, the vertically-integrated and state-owned utility, has suffered from years of neglect and underinvestment. The utility's losses amounted to 28% in 2014 and 41% in 2013. The average electricity tariff (at $0.066 per kWh) is the lowest amongst members of the South African Power Pool and well below marginal costs.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)



Source: Bloomberg New Energy Finance, DRC Société Nationale d'Electricité, Système d'Informations Energétiques RDC, Perenco.

Over the last ten years a few pilot generation projects have started operations. The new Electricity Sector Law adopted in June 2014 draws on these pilot projects, liberalizes the sector and aims at promoting private investment in generation and distribution. The legal regime binding third party operators depends on the type and the size of the project.

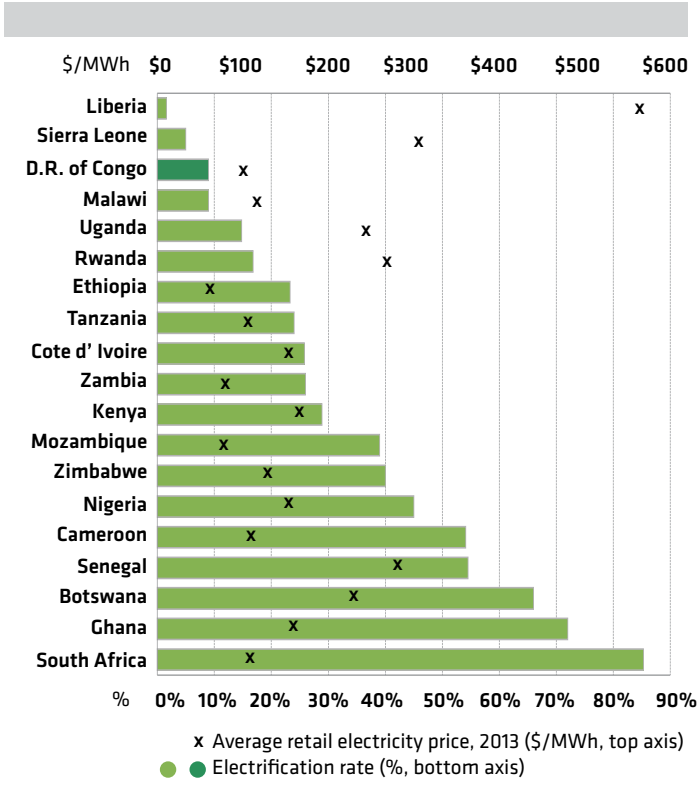
KEY POLICIES

Utility Regulation	The 2014 law liberalizing the energy sector allows third-party operators and simplifies producer licensing processes. It also creates a rural electrification agency and foresees the creation of an organization responsible for auctions and tariffs.
Tax Incentives	Investors are eligible for a range of tax reductions and import duty exemptions.

Source: Bloomberg New Energy Finance Policy Library

All distribution and transmission projects and generation assets are subject to obtaining a concession, generation projects above 1MW require a license and projects between 100kW and 1MW are subject to authorization. For projects below 100kW a declaration is sufficient. Official decrees to create a regulator (ARE) and a rural electrification agency (ARSEL) and transfer the responsibility for local projects to regional governments were at the drafting stage as of the first half of 2015.

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

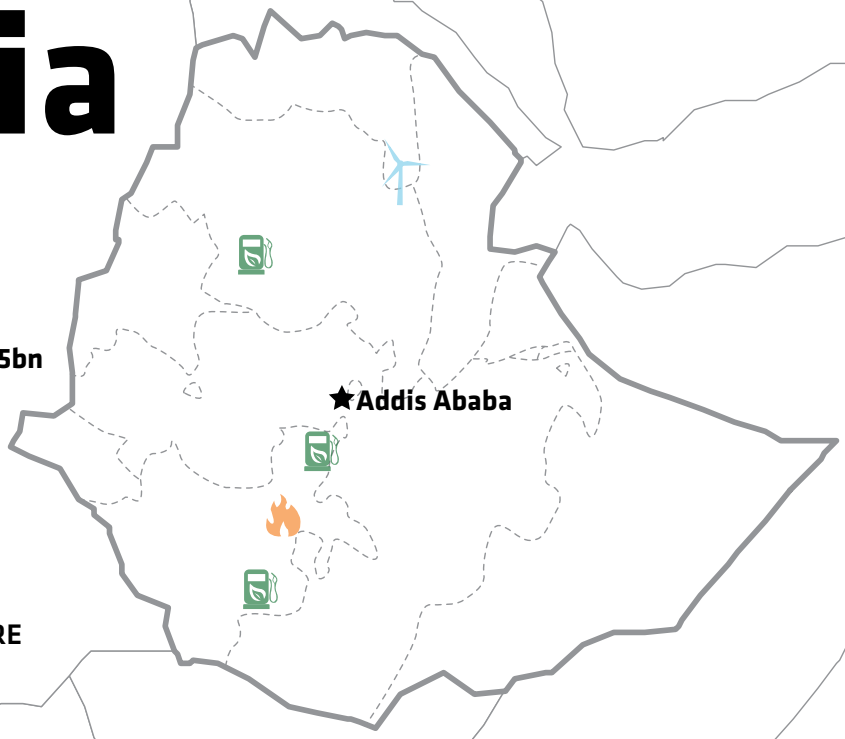


Source: Bloomberg New Energy Finance

The DRC has no specific incentives for renewable energy projects. Imports of goods such as solar lanterns and solar panels are subject to an import duty of 10%, an additional VAT of 16% and other import related taxes, which can amount to 40%. Exemptions can be obtained under the country's investment code for a period of three to five years.

EAST AFRICA

Ethiopia



GDP: **$54.8bn**
Five-year economic growth rate: **12.9%**
Population: **96.5m**
Total clean energy investments, 2009-2014: **$1.5bn**
Installed power capacity: **2.4GW**
Renewable share: **17.0%**
Total clean energy generation: **1.5TWh**
Top energy authority:
Ministry of Water, Irrigation and Energy

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
19	26	1.17

PARAMETER	RANKING	SCORE
I. Enabling Framework	30	1.18
II. Clean Energy Investment & Climate Financing	25	0.53
III. Low-Carbon Business & Clean Energy Value Chains	16	2.63
IV. Greenhouse Gas Management Activities	35	0.97

SCORE SUMMARY

Ethiopia scored 1.17 in *Climatescope* 2015, placing it 26th on the list of countries overall. This was a drop of seven places compared with 2014. The country's highest ranking was on Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Parameter I, Ethiopia finished 30th overall. It was supported by the presence of a rural electrification programme and energy access policies, including targets and tax incentives.

On Clean Energy Investment and Climate Financing Parameter II, the country placed 25th. The country's relatively low average cost of debt was a positive factor but clean energy investment dropped to less than $10m in 2014 from $840m a year earlier.

Ethiopia's relatively high score on Parameter III saw it ranked 16th overall, helped by the presence of 14 service providers.

On Greenhouse Gas Management Activities Parameter IV, the country scored below average. Its strongest performance was in the Carbon Offsets category.

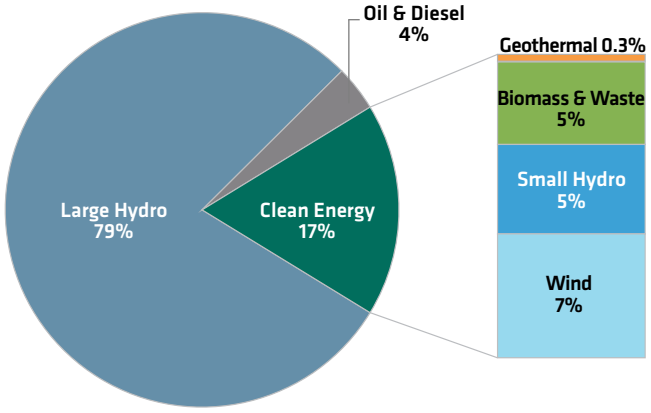
For further information, access www.global-climatescope.org/en/country/ethiopia

OVERVIEW

Ethiopia has seen a surge of activity in recent years, with the government commissioning over 1GW of large hydro and 80MW of wind since 2009, and contracting several more projects. At the end of 2013 it also signed terms with its first independent power producer (IPP) for up to 1GW of geothermal power.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.4GW total installed capacity



Source: Bloomberg New Energy Finance, Ethiopian Electric Power Corporation, Ministry of Water, Irrigation & Energy, Ethiopian Sugar Corporation

Large hydro accounts for approximately 80% of the 2.3GW of installed capacity, and the government's guiding Growth and Transformation Plan 2010-15 aimed for 10GW of hydro power by the end of 2015 – largely based on the 6GW Grand Ethiopian Renaissance Dam Project.

The second Growth and Transformation Plan expects to increase overall installed capacity to 15GW by 2020, with geothermal and wind target areas for further investment. The ministry and utility also have separate plans, and there have been attempts to update the 20-year old National Energy Policy to provide a coherent strategy. Renewables (excluding large hydro) currently make up just under 20% of the mix, with the largest share going to wind energy, followed by small hydro.

The state owned monopoly utility, the Ethiopian Electric Power Corporation (EEPCo), was split into two in late 2013, with Ethiopian Electric Power retaining control of generation and transmission and Ethiopian Electric Services taking charge of distribution. The 2013 legislation also established a new Ethiopian Energy Authority to replace the existing Ethiopian Electric Agency, with expanded regulatory power, among them the permitting of IPPs and tariff scrutiny.

In 2015, the country may see an additional 223MW of renewable energy commissioned, increasing its total to 640MW. The largest contributor of this will be 153MW of wind power. While Ethiopia has vast geothermal resources the technology remains untapped with only 7MW installed and an additional 20MW to be added in 2015 from the Corbetti project (the goal is to expand that project to 1GW eventually).

The country has had a biofuels blending mandate in place since 2008, but cancelled its increase to 20% in early 2015 due to delays in the commissioning of ethanol plants.

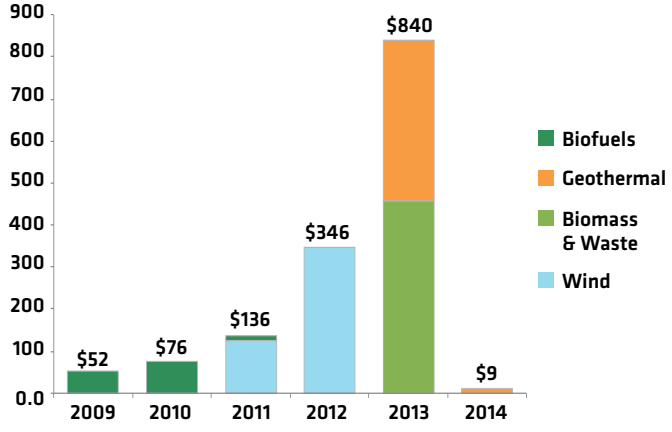
KEY POLICIES

Energy Target	To expand large hydro capacity to 10GW by 2015 under the Growth and Transformation Plan, and overall capacity to 24.1GW by 2030 and 37GW by 2037 under separate ministry and utility plans.
Biofuels	A mandate to blend 10% ethanol with gasoline in Addis Ababa and the surrounding area. The mandate should increase to 20% upon commissioning of a new ethanol manufacturing plant.
Debt/Equity Incentives	The government has a Rural Electrification Fund, biogas digester program and a new energy efficiency fund.
Tax Incentives	Investors are eligible for a range of tax reductions and import duty exemptions.

Source: Bloomberg New Energy Finance Policy Library

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

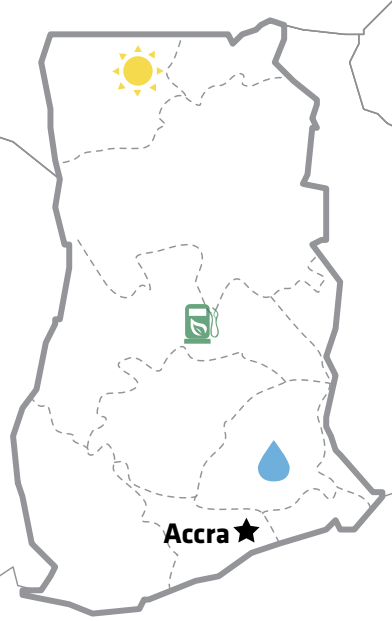
$1.5bn total cumulative investment



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

WEST AFRICA

Ghana



GDP: **$38.6bn**
Five-year economic growth rate: **3.7%**
Population: **26.4m**
Total clean energy investments, 2009-2014: **$30.7m**
Installed power capacity: **2.9GW**
Renewable share: **0.1%**
Total clean energy generation: **3.0GWh**
Top energy authority: **Ministry of Energy and Petroleum**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
26	28	1.07

PARAMETER	RANKING	SCORE
I. Enabling Framework	36	1.05
II. Clean Energy Investment & Climate Financing	50	0.17
III. Low-Carbon Business & Clean Energy Value Chains	20	2.20
IV. Greenhouse Gas Management Activities	15	1.76

SCORE SUMMARY

Ghana scored 1.07 in *Climatescope* 2015, ranking it 28th on the list of countries overall, just two places below its position in 2014. The country's best performance came on Greenhouse Gas Management Activities Parameter IV.

On Enabling Framework Parameter I, Ghana's score fell slightly. Nevertheless, it remained strong in the area of policy on access to energy thanks to initiatives such as its rural electrification programme and the presence of a clean energy plan.

On Clean Energy Investment and Climate Financing Parameter II, the country ranked 50th overall, owing to very low levels of investment to date.

Ghana was ranked 20th on Low-Carbon Business & Clean Energy Value Chains Parameter III, reflecting, among other things, a reasonably well-developed distributed clean energy sector.

On Parameter IV, the country ranked third highest in Africa, but 15th overall, thanks to relatively low levels of CDM risk and the presence of capacity building around GHG management.

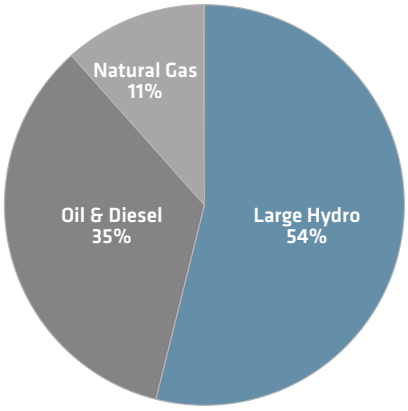
For further information, access www.global-climatescope.org/en/country/ghana

OVERVIEW

Ghana has one of the more liberalized power sectors in Africa. Since 2006, the country has added 1.2GW of oil, diesel and gas power projects. This has yet to be emulated in the renewable energy sector, though the country has seen a large amount of interest in its feed-in tariff (FiT) program.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.9GW total installed capacity



Source: Bloomberg New Energy Finance, Ghana Energy Commission
Note: Negligible values for solar cannot be graphically represented due to scale, see source data for the complete numbers.

Until late 2013, when Ghana's first utility-scale PV plant came online, renewable energy production came solely from distributed PV generation, which currently amounts to about 5MW across thousands of small installations. This distributed capacity was built through both on- and off-grid development aided by Ghana's Energy Development Access Project (GEDAP) and has contributed to the country's high electrification growth rate, which stood at 72% in 2012, up from just over 60% in 2009.

The country has set targets for 5GW overall power generating capacity by 2016, and a 10% renewables share by 2020. While the former will likely not be met, the renewables 2020 target remains a possibility. That will largely depend on grid capacity, with impact studies underway.

KEY POLICIES

Feed-in Tariff	A 10-year fixed tariff for wind, solar, hydro, biomass and biogas projects took effect in 2013. New levies on petroleum products to fund the scheme and other energy sector investments were introduced in 2015.
Energy Target	The energy ministry set a notional target of 500MW of installed renewable energy – roughly 10% of the energy mix – by 2020.
Tax Incentives	Investors are eligible for accelerated depreciation and import duty exemptions.
Utility Regulation	The Renewable Energy Act of 2011 includes a purchase obligation, alongside a new renewable energy fund and a biofuel blending mandate, which as of Q2 2014 had yet to be implemented.

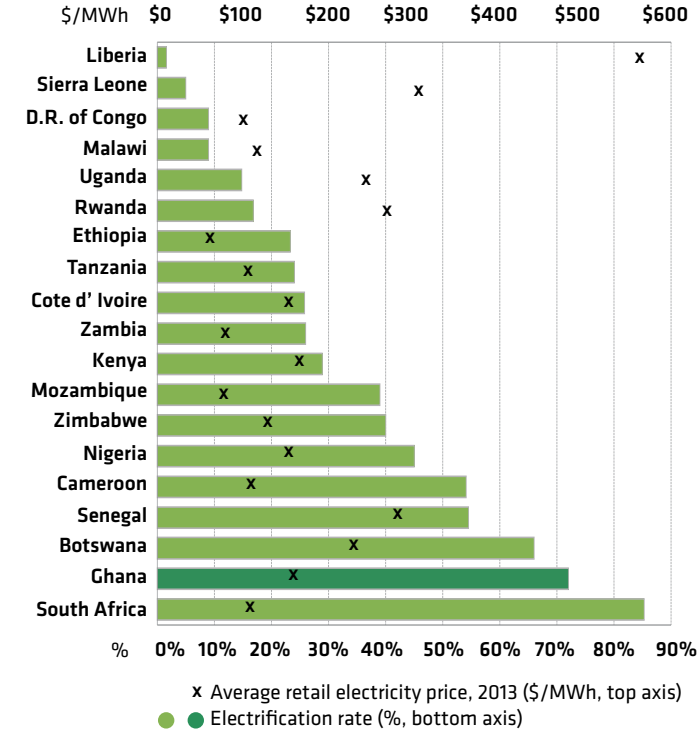
Source: Bloomberg New Energy Finance Policy Library

In 2011, the government introduced the Renewable Energy Act, which comprises five main components all aimed at incentivizing renewable energy investment in the country. They are the FiT, a renewable energy purchase obligation, renewable energy fund, biofuels blending and net metering.

Interest in Ghana's FiT sharpened after the rates were raised in September 2014. Included in the new regulations was a cap put on the size of solar PV projects to maintain grid stability. However, developers have raised concerns over the duration of the power purchase agreement (PPA) as they only guarantee rates for 10 years, and the credit worthiness of the Electricity Company of Ghana, which buys 72% of all power.

Ghana offers import duty exemptions on equipment and while renewable energy is not mentioned specifically, companies do receive them for renewables products. New equipment and machinery can qualify for accelerated depreciation.

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

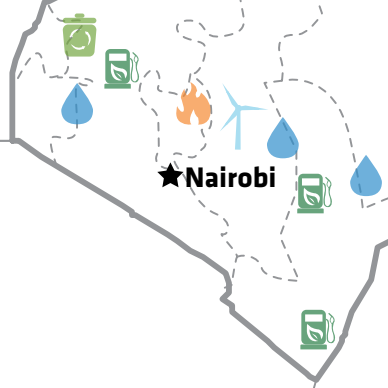


Source: Bloomberg New Energy Finance

EAST AFRICA

Kenya

GDP: **$60.9bn**
Five-year economic growth rate: **8.8%**
Population: **45.5m**
Total clean energy investments, 2009-2014: **$3.6bn**
Installed power capacity: **2.2GW**
Renewable share: **32.8%**
Total clean energy generation: **2.8TWh**
Top energy authority: **Energy Regulatory Commission**



OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
7	6	1.74

PARAMETER	RANKING	SCORE
I. Enabling Framework	05	1.75
II. Clean Energy Investment & Climate Financing	13	0.80
III. Low-Carbon Business & Clean Energy Value Chains	09	3.62
IV. Greenhouse Gas Management Activities	16	1.74

SCORE SUMMARY

Kenya scored 1.74 in *Climatescope* 2015, placing it 6th on the list of countries overall. Among the 19 African nations, it was second only to South Africa. Its highest ranking was on Enabling Framework Parameter I.

Kenya ranked 5th on Parameter I overall, and second in Africa, thanks to the presence of an extensive policy framework for clean energy as well as its distributed and energy access policies.

On Clean Energy Investment and Climate Financing Parameter II, the country's score improved, though it dropped one place on the overall ranking. It advanced with the largest wind financing in sub-Saharan Africa in 2014.

Kenya's score on Low-Carbon Business & Clean Energy Value Chains Parameter III also dipped, however it still has a comparatively high number of clean energy service providers and value chains.

On Greenhouse Gas Management Activities Parameter IV, Kenya was ranked 16th overall. It scored relatively well for its carbon offsetting activities.

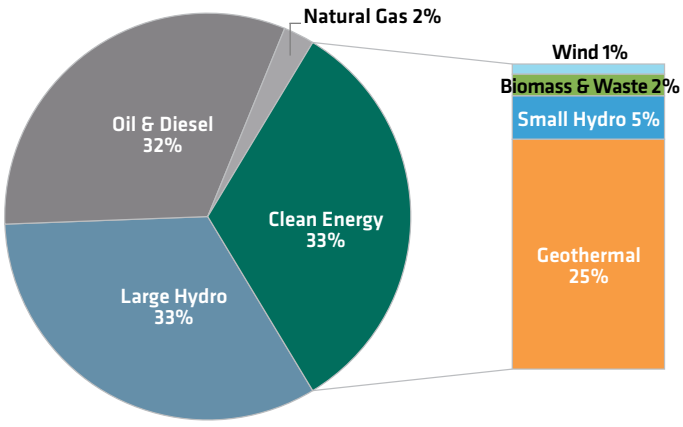
For further information, access www.global-climatescope.org/en/country/kenya

OVERVIEW

Kenya has ambitious energy objectives, aiming to reach just under 22.7GW of power-generating capacity by 2033, under the Least-Cost Power Development Plan 2013-33. Clean energy sources are to play an important role in this development, with 45% of the capacity to use renewables (including large hydro but excluding solar). In comparison, Kenya had some 2.2GW of power-generating capacity at end-2014, of which a third was renewable. In large part, this ambition is driven by healthy economic growth, which saw on-grid peak power demand climb 60% between 2006 and 2014.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.2GW total installed capacity



Source: Bloomberg New Energy Finance, Kenya Power & Lighting Company, KenGen
Note: Negligible values for solar cannot be graphically represented due to scale, see source data for the complete numbers.

The East African country surpassed Japan at the end of 2014 to become the eighth-largest producer of geothermal energy after the state-owned generator KenGen commissioned a further 280MW of capacity. Kenya enjoys extensive clean energy resources, with 10GW of geothermal and 3GW of small hydro potential, according to the draft National Energy Policy. Unlike previous versions, this draft does not set out new targets to 2030 for all technologies. Instead, it still aims for 5.5GW of geothermal capacity by that year but only includes goals to end-2016 for other renewable energy sources. These goals were part of the government's plan to reach 5GW of power-generating capacity, to include 1.9GW of geothermal, 635MW of wind and 44MW of biomass cogeneration.

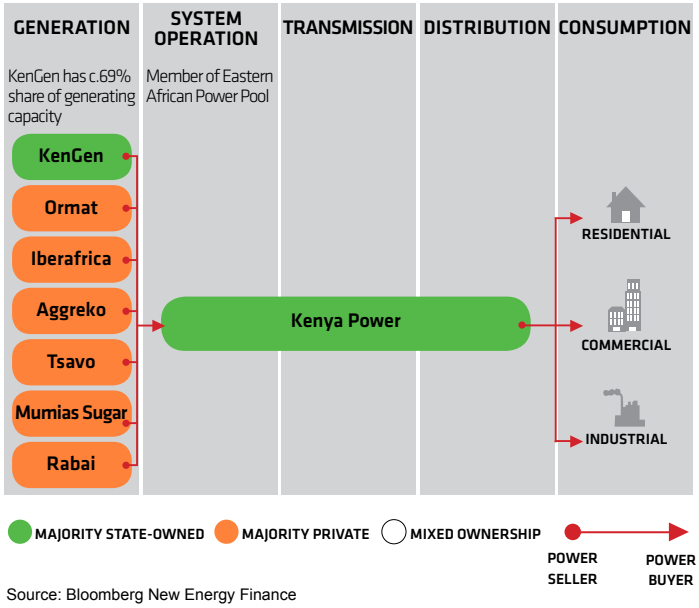
KEY POLICIES

Feed-in Tariff	A 20-year fixed tariff for wind, solar, geothermal, hydro, biomass and biogas projects to be revised in late 2015, alongside a standardized power-purchase agreement.
Energy Target	Current target to reach 20GW of power capacity by 2030, comprising 51% renewable energy. The draft National Energy Policy, yet to be approved as of Q4 2015, contains new shorter-term targets by technology. Target to reach 100% electrification by 2020.
Biofuels	The draft National Energy Policy would introduce a biofuel blending mandate by 2030.
Utility Regulation	Energy management regulations introduced in 2012 aim to reduce losses from industry, commercial buildings and large institutions.
Net Metering	The Q1 2014 draft of the new energy bill, as well as the draft National Energy Policy, contains provisions for net metering for small-scale renewable generators.
Tax Incentives	Investors are eligible for a range of national and regional tax reductions and import duty exemptions.

Source: Bloomberg New Energy Finance Policy Library

POWER SECTOR STRUCTURE

Regulator: Energy Regulatory Commission



Source: Bloomberg New Energy Finance

The single largest project under development is a 310MW wind farm near Lake Turkana, in northwest Kenya. This is a truly flagship project having taken nearly 10 years and a dozen investors to reach financial close in 2014. The developers broke ground in July 2015, with an estimated commissioning date of 2017. A forthcoming 428km overhead transmission line – funded by the government – will connect the project to Suswa, some 100km from Nairobi.

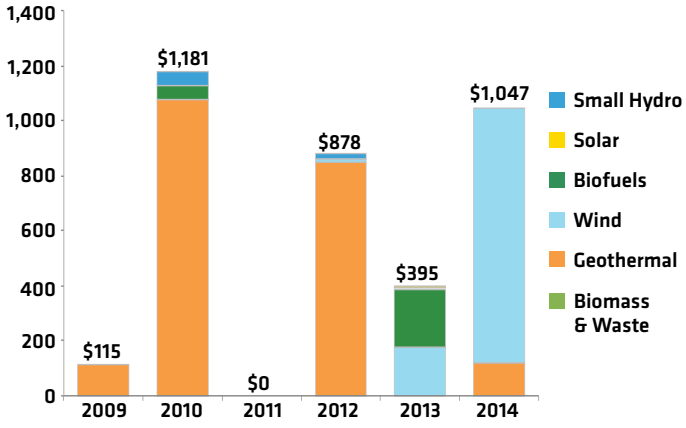
Government-owned Geothermal Development Company (GDC), is working to fast-track the development of Kenya's geothermal resources and plans to replicate a model whereby it conducts the risky and expensive, early-stage exploration and drilling. It then selects by tender the independent power producers (IPP) that will take the project to commissioning. The GDC has become somewhat of a regional center for geothermal, assisting neighboring countries with exploration of their resources and training their workers.

Kenya's power market has been partly unbundled. Kenya Power is responsible for all functions except generation and a small share of transmission. State-owned KETRACO, which was set up in 2008, develops and operates new transmission lines. Though Kenya has more IPPs than many of its neighbors, KenGen still had 70% of power-generating capacity at end-2014. The new National Energy Policy and Bill, which are due to go to Parliament in 2015, propose a raft of measures to separate generation, distribution and retail functions, with a separate unit to be set up in either Kenya Power or KETRACO to become the system operator.

The legislative framework behind the energy sector has been under review since 2011, when a new constitution passed many powers to the county level. The new policy and bill should help spur investment in clean energy, as the draft released in January 2015 proposed the introduction of net metering. Policymakers' original goal had been to incorporate legislation on all energy sources in one bill. However, what was one became two, and now five, pieces of legislation, including local content regulations for energy projects. As of H2 2015, they were under consideration in parliament.

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

$3.6bn total cumulative investment



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

The new rules lay out the minimum proportion of goods or services that must come from domestic sources. This could bode well for PV and wind manufacturers in Kenya, such as Ubbink – one of the few solar module makers in East Africa. On the down side, the proposal to implement a range of biofuel blending requirements did not survive through to the latest version of the Policy.

LEAGUE TABLE

2014 Total Investments	$1,047m

Top Three Lead Debt Arrangers 2014 ($m)

1st	European Ivestment Bank	$277m
2nd	African Development Bank	$152m
3rd	KFW	$137m

Top Three Equity Sponsors 2014 ($m)

1st	KP&P BV	$191m
2nd	Aldwych International Ltd	$191m
3rd	European Investment Bank	$142m

Top Three Asset Finance Deals, 2014 ($m)

Rank	Sector	Project	Developer	Value
1st		Lake Turkana Wind Farm	LTWP	$929m
2nd		Geothermal Development Bogoria-Silali Geothermal Project Phase I	Geothermal Development Co	$118m

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

Kenya's main tool to incentivize renewable energy development is the feed-in tariff, which has spurred some renewables build – though some developers have said the FiTs are not high enough for them to recover costs, in particular for solar projects. IPPs had 1.2GW of wind projects online or in development as of March 2015, together with 272MW of geothermal, 221MW of solar and 28MW of small hydro.

After two rounds of revision, three more technologies (biogas, geothermal and solar PV) have been included in the feed-in tariff and some rates have been increased. The feed-in tariff review that was due to take place last year was not held, but the Ministry of Energy has said it is scheduled to begin in Q4 2015. In the meantime, the government is working on a proposal to implement renewable energy auctions, though there is a question of whether Kenya's renewables market and the required financing structures are sufficiently mature for such a policy mechanism.

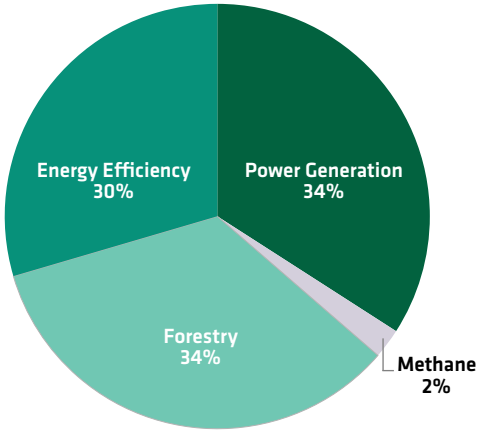
FINANCIAL INSTITUTIONS IN CLEAN ENERGY

✓	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

44 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**

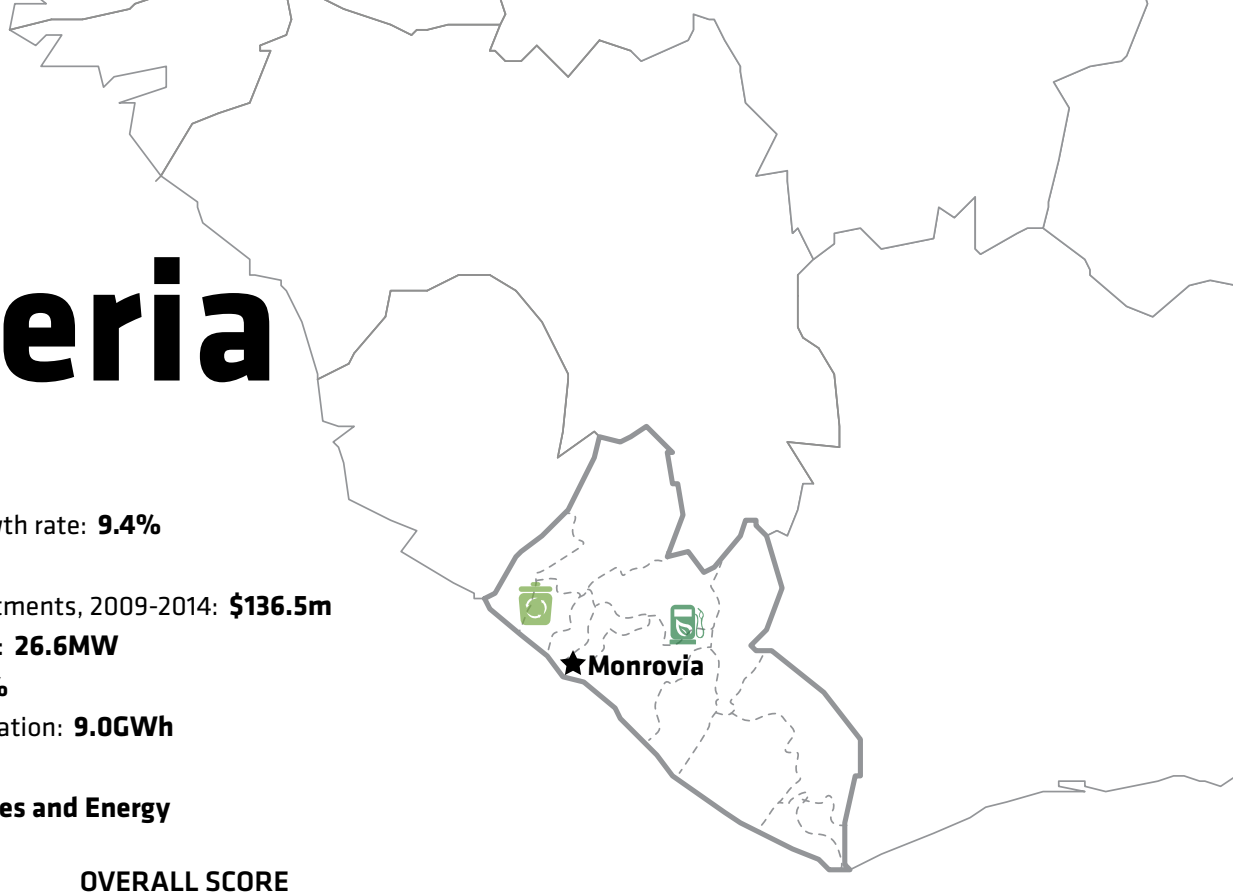
Source: Bloomberg New Energy Finance
Note: Uncolored icons, on the left, refer to each sub-sector of a complete value chain for a given sector, spelled out on the right. Colored icons represent the number of available subsectors for a given clean energy sector value chain. Bold text, on the right, illustrates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

Kenya has made significant progress in increasing electricity access by extending the grid and off-grid projects (both diesel and renewable). As a result, electrification rates have nearly doubled since 2010, to 35% by end-2014. Overall, the country now aims to reach universal electricity access by 2020, after the government brought forward the deadline by a decade.

Among the African countries, Kenya hosts the second highest number of carbon offset projects after South Africa. As part of its Intended Nationally Determined Contribution (INDC) in the run up to the Paris climate conference, the country committed to cutting greenhouse gas emissions by 30% relative to business as usual by 2013.

WEST AFRICA

Liberia



GDP: **$2.0bn**
Five-year economic growth rate: **9.4%**
Population: **4.4m**
Total clean energy investments, 2009-2014: **$136.5m**
Installed power capacity: **26.6MW**
Renewable share: **15.0%**
Total clean energy generation: **9.0GWh**
Top energy authority:
Ministry of Lands, Mines and Energy

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
35	35	0.91

PARAMETER	RANKING	SCORE
I. Enabling Framework	12	1.49
II. Clean Energy Investment & Climate Financing	31	0.43
III. Low-Carbon Business & Clean Energy Value Chains	40	1.03
IV. Greenhouse Gas Management Activities	54	0.18

SCORE SUMMARY

Liberia scored 0.91 in *Climatescope* 2015, placing it 35th on the list of countries overall, the same position it occupied in 2014. Its highest score by far was on Enabling Framework Parameter I.

Nevertheless, the country dropped four places on Parameter I to rank 12th. It scored highly for the relative price attractiveness of clean energy as well as market size expectations, as well as for policies related to energy access.

On Clean Energy Investment and Climate Financing Parameter II, Liberia was placed 31st. Its score was boosted by the size of investments in previous years relative to its small economy, but weakened by the absence of new investment.

Liberia ranked 40th overall on Low-Carbon Business & Clean Energy Value Chains Parameter III, with few value chain companies or service providers present.

On Greenhouse Gas Management Activities Parameter IV, the country ranked a very poor 54th, above only Haiti.

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

OVERVIEW

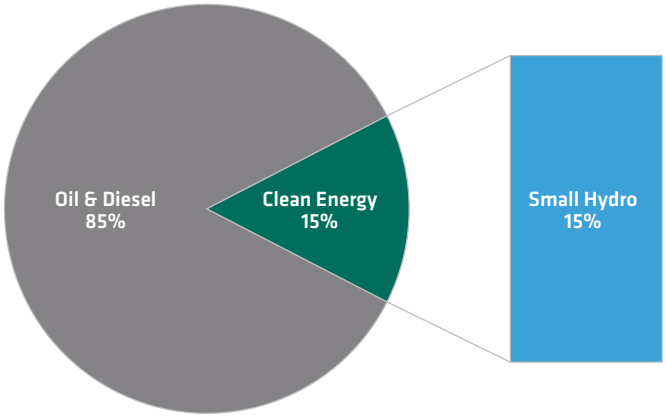
Liberia has possibly the lowest electrification rate (2%) and the highest energy tariffs ($534 per MWh) in the world.

Before the 1989-2003 war, the country had an installed capacity of 191MW, comprising a 64MW large-hydro plant at Mount Coffee and heavy fuel oil (HFO) and diesel generators. By the end of the war this capacity was almost entirely destroyed. The Liberia Electricity Corporation (LEC), the integrated national utility has an installed capacity of only 27MW, most of which is based on HFO generation

Liberia aims to increase the electrification rate to 30% by 2030. The Electricity Master Plan of 2012 estimates that peak demand will grow from 8MW in 2012 to 94MW in 2018, and 202MW in 2030.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

26.6MW total installed capacity



Source: Bloomberg New Energy Finance, Liberia Electricity Corporation, Norplan, Firestone

The 2009 National Energy Policy set the target of 30% renewable power generation by 2015. The tax code grants a range of benefits to renewable energy projects, including exemption from import duties for capital goods, exemption from property taxes, tax deductions of up to 30% of the purchase price of equipment and the possibility to carry forward tax losses over five years. The Rural and Renewable Energy Agency (RREA) was established in 2010 with the mission of promoting renewable energies and rural electrification.

KEY POLICIES

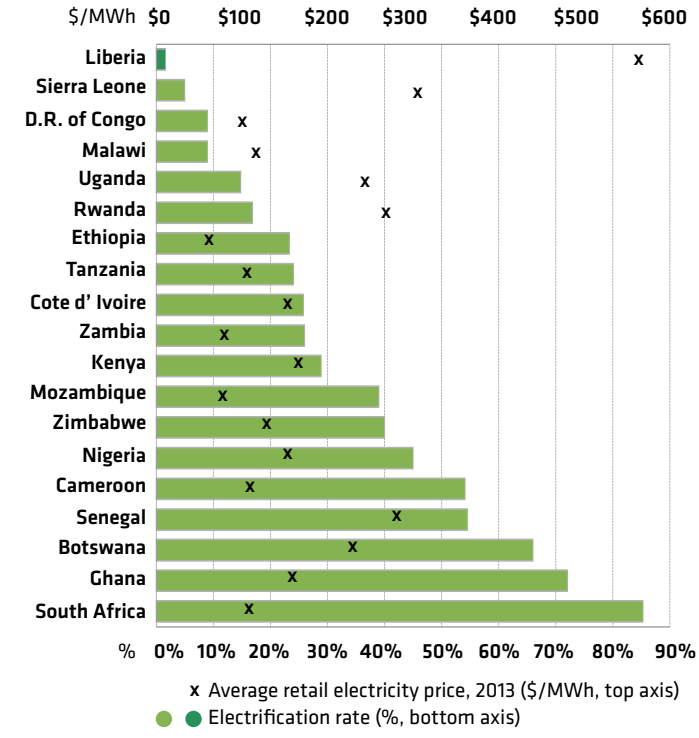
Energy Target	Renewable energy to comprise 30% of electricity production and 10% of overall energy consumption by 2015 under the 2009 National Energy Policy.
Tax Incentives	Renewable projects are eligible for a range of tax reductions and import duty exemptions.

Source: Bloomberg New Energy Finance Policy Library

The national utility, LEC, has a de facto monopoly on generation, transmission and distribution under the law that created it in 1973. The company signed a management contract with Manitoba Hydro International in 2010 and in 2013 extended it until the end of 2016. The Liberia Accelerated Electricity Expansion Project funded by the World Bank and running until 2018 is expected to support the Ministry of Lands, Mines and Energy of Liberia (MLME) to develop and establish a framework for private sector participation in electricity generation.

A sizeable investment to build a 35MW biomass plant was announced by Buchanan Renewables in 2008 with the backing of OPIC, the US export credit agency, but ultimately the project was abandoned in 2013.

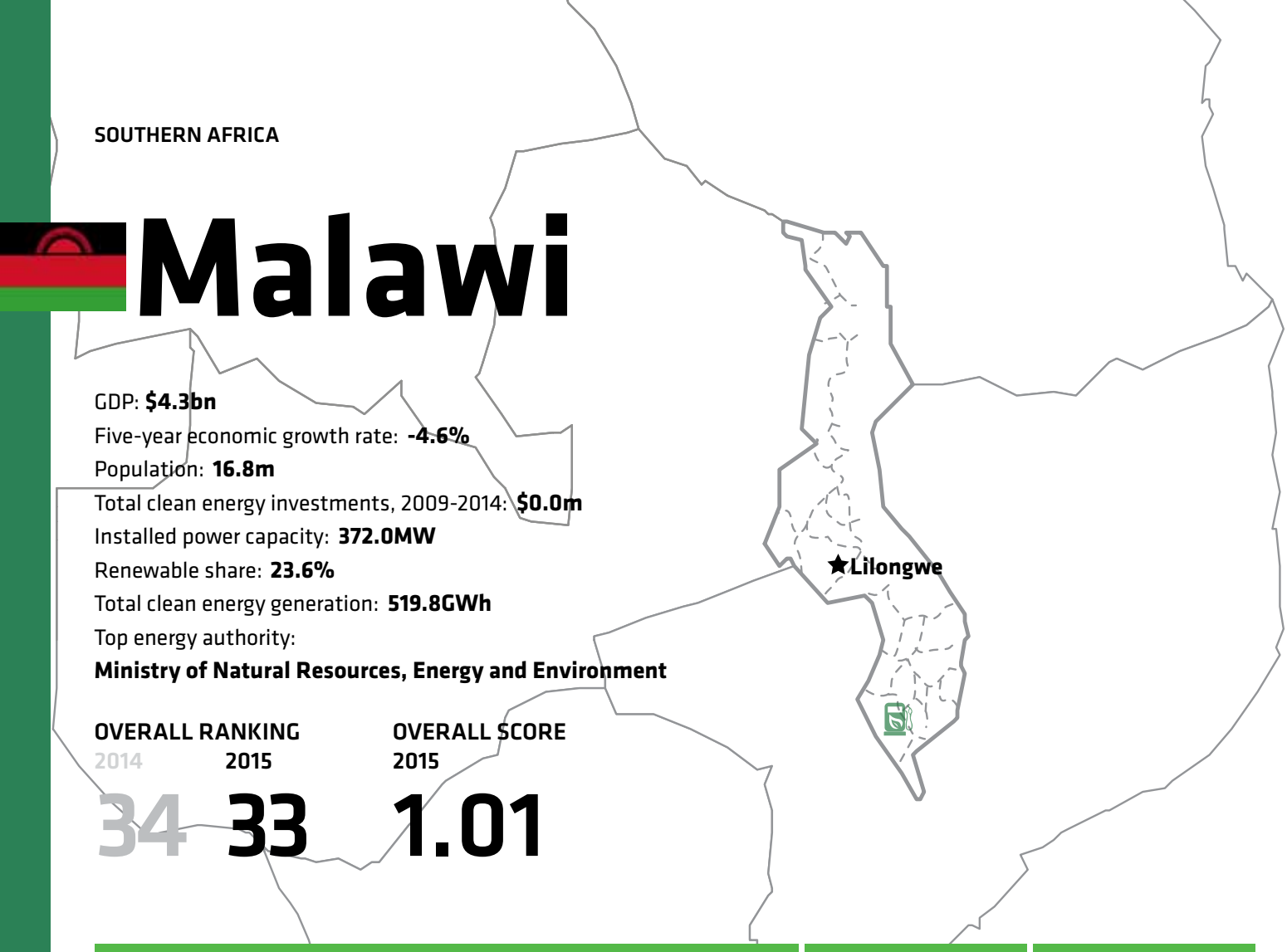
ELECTRIFICATION RATES (%) VS AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/MWh)



Source: Bloomberg New Energy Finance

SOUTHERN AFRICA

Malawi



GDP: **$4.3bn**
Five-year economic growth rate: **-4.6%**
Population: **16.8m**
Total clean energy investments, 2009-2014: **$0.0m**
Installed power capacity: **372.0MW**
Renewable share: **23.6%**
Total clean energy generation: **519.8GWh**
Top energy authority:
Ministry of Natural Resources, Energy and Environment

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
34	33	1.01

PARAMETER	RANKING	SCORE
I. Enabling Framework	22	1.29
II. Clean Energy Investment & Climate Financing	53	0.11
III. Low-Carbon Business & Clean Energy Value Chains	28	1.44
IV. Greenhouse Gas Management Activities	18	1.60

SCORE SUMMARY

Malawi scored 1.01 in *Climatescope* 2015, placing it 33rd on the list of countries overall, up one place on 2014. Its best performance was on Greenhouse Gas Management Activities Parameter IV.

The country was ranked 22nd on Enabling Framework Parameter I, which was a slight improvement on 2014. This largely reflected the country's relatively robust framework for distributed energy and the presence of energy access policies.

On Clean Energy Investment and Climate Financing Parameter II, the country was placed near the bottom of the list in 53rd place, reflecting the absence of investment in the sector.

Malawi was ranked 28th on Low-Carbon Business & Clean Energy Value Chains Parameter III, with a number of service providers present related to the distributed energy sectors.

On Parameter IV, the country climbed 10 places to 18th thanks to a better performance on the Clean Development Mechanism risk indicator.

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

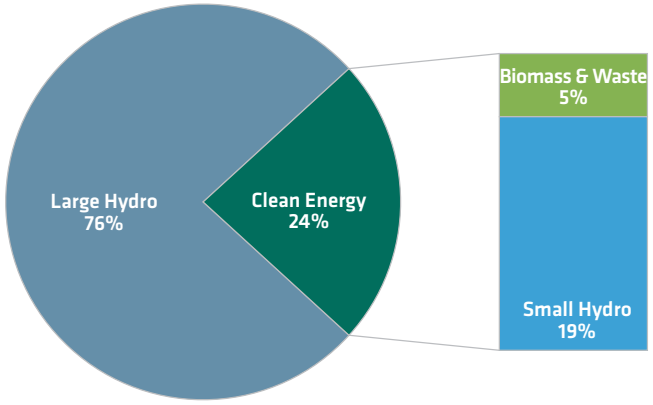
OVERVIEW

Malawi's electricity generation mix consists predominantly of large hydro power plants, mainly on the Shire River that flows from Lake Malawi. With an electrification rate of at most 9% and increasing power demand, the country is struggling to reform its power market and incentivise the build-out of new capacity.

Malawi's Ministry of Natural Resources, Energy and Environment oversees its electricity sector along with the Malawi Energy Regularity Authority (MERA). The Electricity Supply Corporation of Malawi (ESCOM) is a vertically integrated government utility and responsible for all generation, transmission, distribution and retail within the country.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

372.0MW total installed capacity



Source: Bloomberg New Energy Finance, Electricity Supply Corporation of Malawi, Sucoma, Dwasco

In September 2012, MERA finalised a feed-in tariff, but to date it has not been made available to developers. Clean energy project developers and manufacturers can qualify for general tax incentives that were set up to support foreign investment. A biofuels blending mandate has been in place since the 1980s.

KEY POLICIES

Energy target	7% of total energy consumption from solar and wind by 2020 and 10% by 2050, based on 2003 National Energy Policy.
Feed-in Tariff	Drawn up by the regulator in 2012 but the 20-year fixed tariffs have yet to be implemented.
Biofuels	A mandate to blend 10% ethanol with gasoline since 2004, often not met due to short supply.
Debt/Equity Incentives	The Rural Electrification Fund has provided grants for grid extension and mini grids since 2004.
Tax Incentives	Investors are eligible for a range of tax reductions and import duty exemptions.

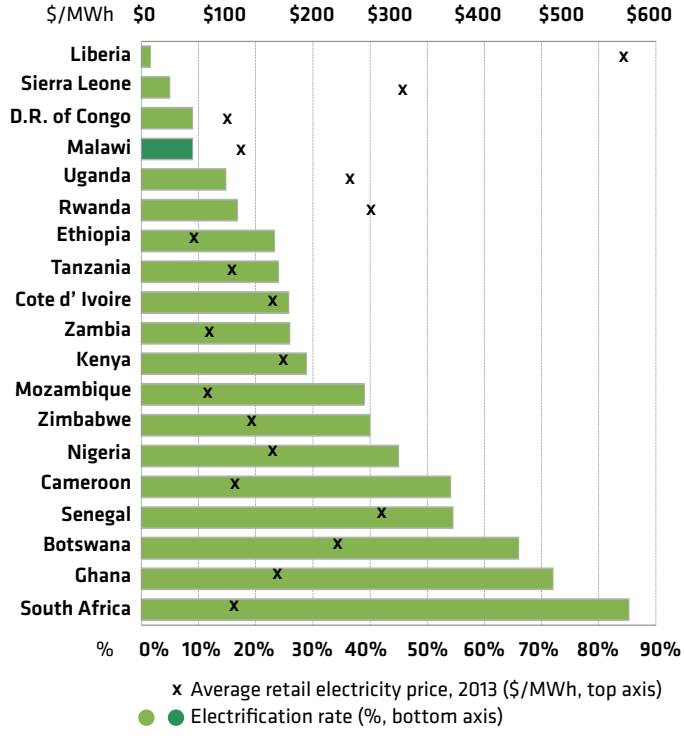
Source: Bloomberg New Energy Finance Policy Library

Large hydro power plants make up 282MW of the 372MW of installed capacity. Small hydro contributes 68MW, with the remainder composed of biomass, diesel and a single 0.83MW PV plant. The two biomass plants are captive and owned by a sugar cane producer, while the PV plant – financed through a grant from Japan – is used to power Lilongwe's airport.

The government is conducting feasibility studies for new large hydro power plants with a total capacity of 310MW. To attract foreign investment in the power sector, the country has started opening up the electricity market with a standardised power purchase agreement to allow independent power producers to operate. It is early days, however: only two IPPs are developing projects: HE Power, for a 41MW hydro project, and IntraEnergy for a 120MW coal plant.

The existing Rural Electrification Programme under the energy ministry uses revenues from a 1% electricity tax for a fund to extend the main grid to trade centres. Malawi has few public schemes to help develop off-grid solutions despite having an energy access target of 30% by 2020.

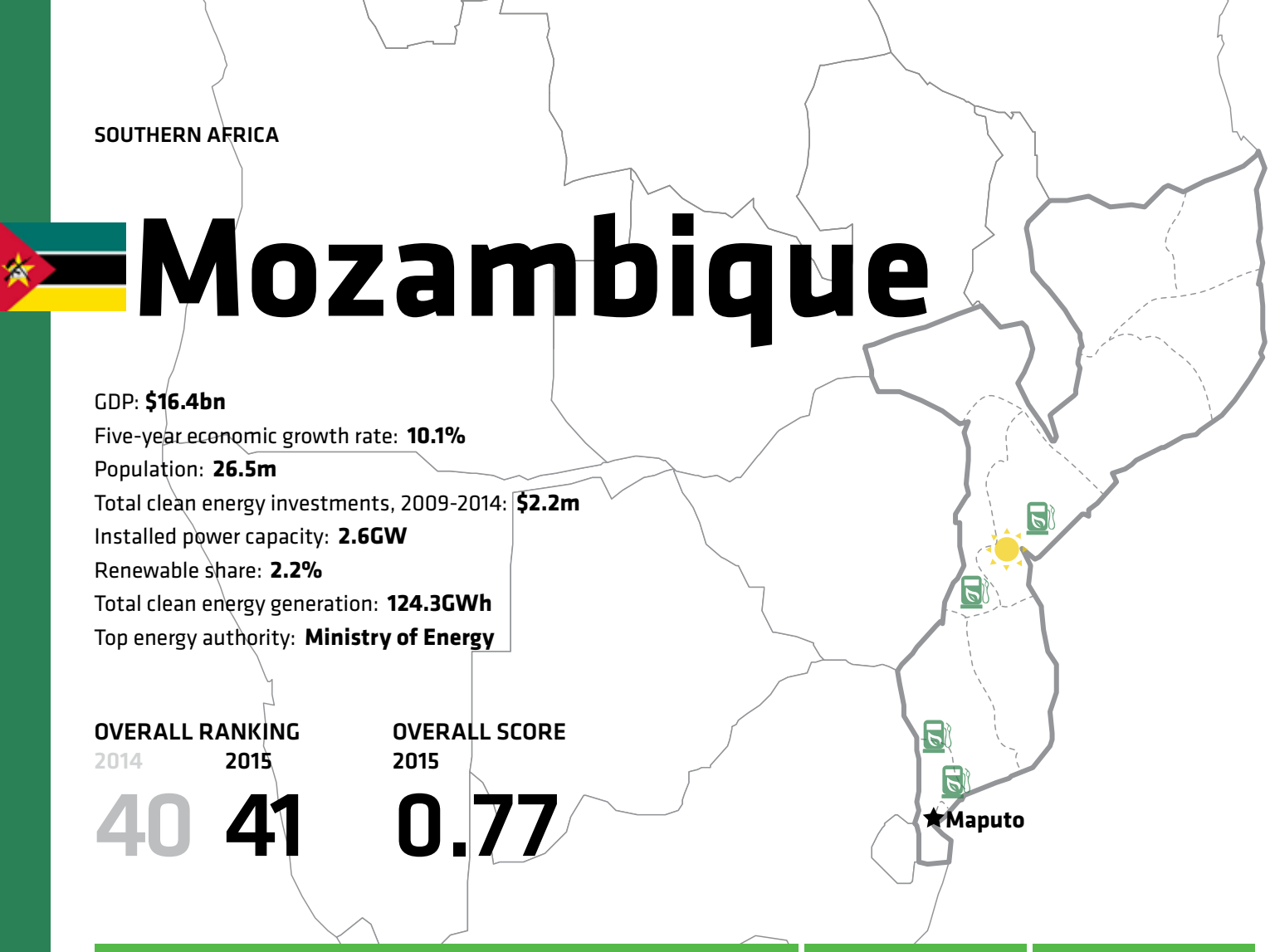
ELECTRIFICATION RATES (%) VS AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/MWh)



Source: Bloomberg New Energy Finance

SOUTHERN AFRICA

Mozambique



GDP: **$16.4bn**
Five-year economic growth rate: **10.1%**
Population: **26.5m**
Total clean energy investments, 2009-2014: **$2.2m**
Installed power capacity: **2.6GW**
Renewable share: **2.2%**
Total clean energy generation: **124.3GWh**
Top energy authority: **Ministry of Energy**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
40	41	0.77

PARAMETER	RANKING	SCORE
I. Enabling Framework	43	0.84
II. Clean Energy Investment & Climate Financing	37	0.36
III. Low-Carbon Business & Clean Energy Value Chains	30	1.34
IV. Greenhouse Gas Management Activities	38	0.82

SCORE SUMMARY

Mozambique scored 0.77 in *Climatescope* 2015, placing it 41st on the list of countries overall, a decline of one place from its position in 2014. The country's highest score was on Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Enabling Framework Parameter I, Mozambique lost one place to rank 43rd. Its score was supported by its relatively high diesel and kerosene prices.

The country gained five places to take 37th position on Clean Energy Investment and Climate Financing Parameter II. While there has been little investment to date, the sector has benefited from a modest volume of grants and loans.

On Parameter III, Mozambique was placed 30th, reflecting the presence of a small number of clean energy value chains and service providers, including a solar module assembly plant.

On Greenhouse Gas Management Activities Parameter IV, the country ranked 38th, scoring best on the Clean Development Mechanism risk indicator.

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

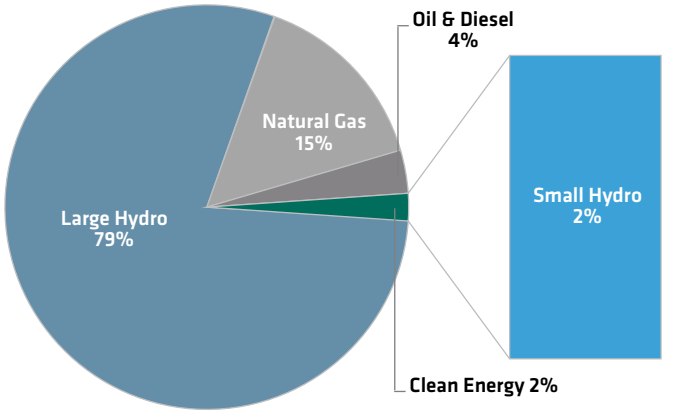
OVERVIEW

Mozambique's power sector runs predominantly on hydro generation. However, large discoveries of coal reserves and offshore natural gas in the north of the country may change this mix in the future.

As of 2014, Mozambique's on-grid generating capacity was 2.2GW, with large hydro power making up 2GW. Electricidade de Moçambique (EDM), the country's state-owned vertically integrated utility, has 5% of its generation capacity and is responsible for transmission and distribution services. Hidroeléctrica de Cahora Bassa's 2GW large hydro plant is responsible for the remaining generation and is a large exporter of electricity to surrounding countries.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.6GW total installed capacity



Source: Bloomberg New Energy Finance, Electricidade de Moçambique, Gigawatt Mozambique

In 2011, a public-private partnership law was published, creating opportunities for private generators. There are currently a 110MW gas-fired plant, two coal-fired power plants amounting to 900MW and a 1.5GW large hydro project being developed by independent power producers (IPPs). Additionally, two other projects are being developed to supply coal mines. All IPPs must sell electricity to EDM under negotiated prices.

KEY POLICIES

Energy Target	100MW of onshore wind and 125MW of small hydro power by 2025, plus plans to use solar PV and establish a feed-in tariff.
Feed-in Tariff	A tariff for solar, wind, biomass and small hydro projects from 10kW to 10MW. Full implementation is still pending final regulatory modifications.
Biofuels	A mandate to blend 10% ethanol with gasoline and 3% biodiesel with diesel, rising further from 2015.
Debt/Equity Incentives	The national energy fund supports off-grid electrification, with a goal of providing solar power to 2.1m people in rural areas.
Tax Incentives	Investors in large infrastructure projects are eligible for a range of tax reductions and VAT and import duty exemptions.

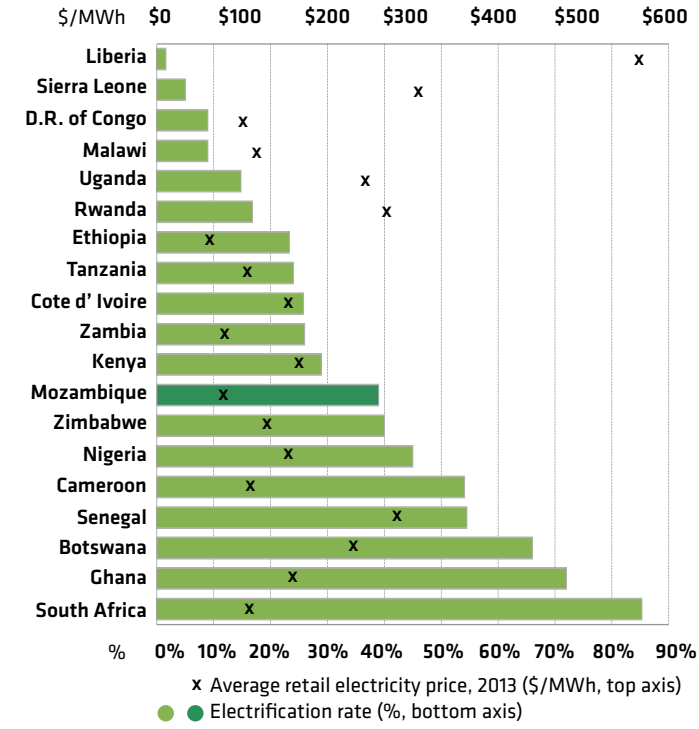
Source: Bloomberg New Energy Finance Policy Library

To date, clean energy has mainly been deployed to increase the country's electrification rate, which stands at 40%. Distributed solar systems have been fundamental to bring electricity to small villages, where transmission infrastructure has not arrived. The National Energy Fund (FUNAE) is a government agency dedicated to implementing off-grid projects. FUNAE holds tenders for the installation of systems across the country by private developers.

To foster the development of renewable energy technologies in the country, the Ministry of Energy in 2014 launched a feed-in tariff to provide price premiums to small-scale projects from 10kW to 10MW for biomass, small hydro, solar and wind. Premium rates varied from $0.13-$0.41/kWh. However, regulation to implement the feed-in tariff is still pending. On the utility-scale side, there are plans to develop a wind farm close to Inhambane.

Mozambique is one of the few countries in Sub-Saharan Africa to have a solar supply-chain facility. The module assembly plant near Maputo aims to produce components for the national market.

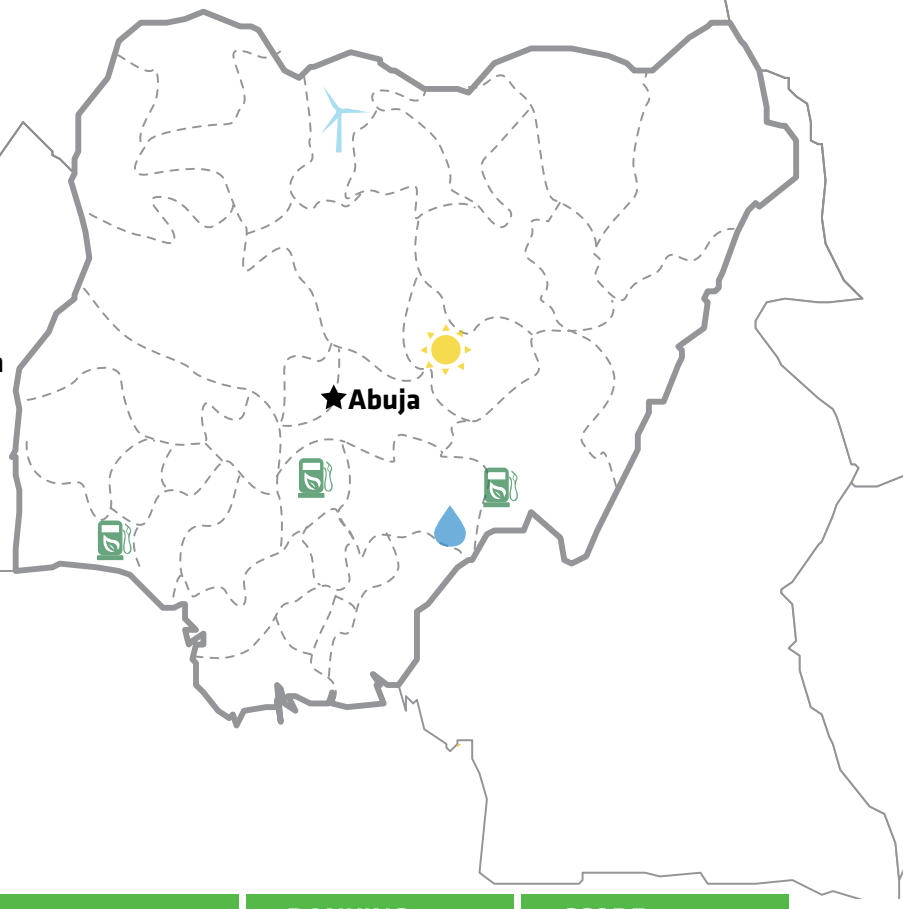
ELECTRIFICATION RATES (%) VS AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/MWh)



Source: Bloomberg New Energy Finance

WEST AFRICA

Nigeria



GDP: **$568.5bn**
Five-year economic growth rate: **9.0%**
Population: **178.5m**
Total clean energy investments, 2009-2014: **$358.7m**
Installed power capacity: **10.7GW**
Renewable share: **0.6%**
Total clean energy generation: **68.0GWh**
Top energy authority:
National Energy Regulatory Commission

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
22	12	1.58

PARAMETER	RANKING	SCORE
I. Enabling Framework	14	1.48
II. Clean Energy Investment & Climate Financing	07	1.13
III. Low-Carbon Business & Clean Energy Value Chains	13	3.30
IV. Greenhouse Gas Management Activities	31	1.01

SCORE SUMMARY

Nigeria scored 1.58 in *Climatescope* 2015, placing it 12th on the list of countries overall. This was an increase from 2014 and was largely due to a higher score on Clean Energy Investment and Climate Financing Parameter II in general, and the growth rate of clean energy investment in particular.

On Enabling Framework Parameter I, the country's score increased thanks largely to a rise on its small base of clean energy generating capacity.

On Parameter II, Nigeria ranked 7th overall and highest among the African nations. This reflected an increase of 158% in the volume of asset finance to $359m in 2015.

Nigeria's high score on Low-Carbon Business & Clean Energy Value Chains Parameter III was supported by a high number of value chains and service providers.

On Greenhouse Gas Management Activities Parameter IV, the country was ranked 30th and showed some strength in the carbon offsets category.

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

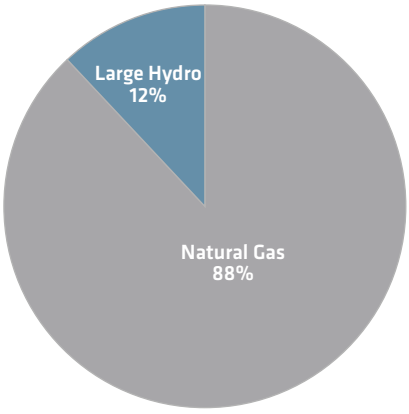
OVERVIEW

At year-end 2014, Nigeria had an installed electricity capacity of 10.7GW. Having gone through major power sector reform, and elections in 2015, it has yet to deploy grid-scale renewable energy projects despite having a feed-in tariff (FiT) in place.

Power cuts are a common occurrence for the 58% of the Nigerian population that has access to grid electricity. Among the rural population this drops to less than 20%. The electrification target is 75% by 2020 and 100% by 2030. The Nigerian grid also suffers from a lack of maintenance.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

10.7GW total installed capacity



Source: Bloomberg New Energy Finance, Nigeria National Bureau of Statistics, Nigerian Electricity Regulatory Commission, KNUST Energy Center
Note: Negligible values for small hydro and oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

In March 2015, Nigeria elected a new president, General Muhammadu Buhari. Indications are that the new government will maintain the momentum on renewables and energy-efficiency policy development. In May 2015, the Nigerian Federal Executive Council approved the National Renewable Energy and Energy Efficiency Policy (NREEEP) which mandates which instruments (FiTs, energy targets, etc.) will be applied. The next step will be a National Renewable Energy Action Plan (NREAP).

KEY POLICIES

Energy Target	Non-legally binding targets, including 10% renewable energy by 2020, under the renewable energy policy proposed in 2014. Binding targets are slated to follow in the country's first NREAP in 2016.
Feed-in Tariff	A 15-year fixed tariff for wind, solar, small hydro and biomass, which is revised every five years. The regulator proposed significant changes in July 2015.
Biofuels	A mandate to blend 10% ethanol with gasoline and 20% biodiesel with diesel by 2020.

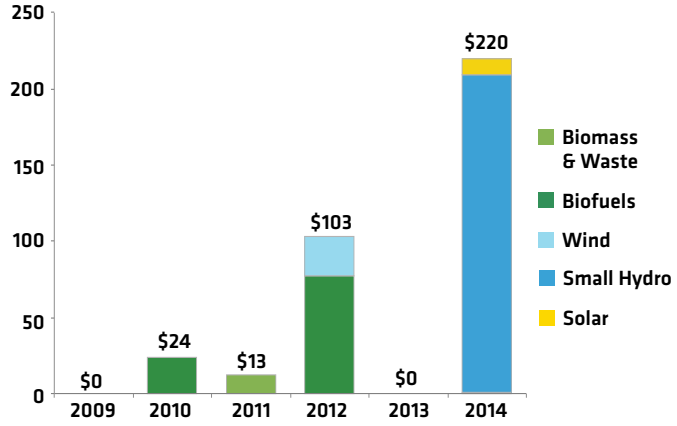
Source: Bloomberg New Energy Finance Policy Library

Nigeria currently has a target for 40GW of installed power capacity by 2020, of which 10% must come from renewable energy. Under the Multi-Year Tariff Order 2 (MYTO2), it also has a FiT underwritten by the government-backed electricity trader the Nigerian Bulk Electricity Trading Company (NBET).

New draft regulations for the country's FiT were published in July 2015. They introduce another renewable energy target: for 2GW by 2020, which also acts as a cap. Individual projects are limited to 30MW, but the FiT will be denominated in US dollars fixed for the duration of the power purchase agreement (i.e. 20 years) rather than reviewed every five years.

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

$358.7m total cumulative investment

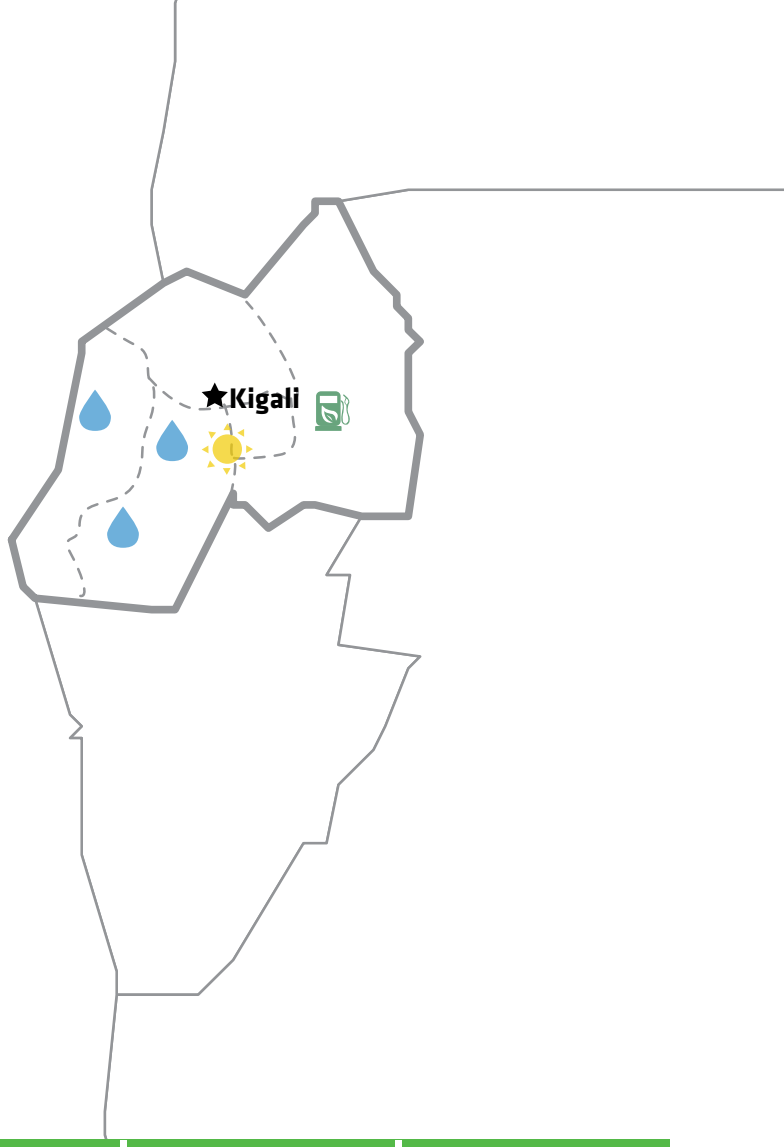


Source: Bloomberg New Energy Finance
Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

Aside from the NREEEP policy and FiT proposal, the most significant recent development was the unbundling and privatisation of generation and distribution companies in the Nigerian power sector, which was completed in late 2013. The so-called transitional electricity market began in February 2015, after multiple delays, with NBET acting as a clearing house and guarantor for power purchases.

EAST AFRICA

Rwanda



GDP: **$7.9bn**
Five-year economic growth rate: **6.7%**
Population: **12.1m**
Total clean energy investments, 2009-2014: **$102.0m**
Installed power capacity: **140.6MW**
Renewable share: **63.4%**
Total clean energy generation: **297.6GWh**
Top energy authority: **Ministry of Infrastructure**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
23	17	1.41

PARAMETER	RANKING	SCORE
I. Enabling Framework	02	2.01
II. Clean Energy Investment & Climate Financing	15	0.77
III. Low-Carbon Business & Clean Energy Value Chains	26	1.86
IV. Greenhouse Gas Management Activities	42	0.67

SCORE SUMMARY

Rwanda scored 1.41 in *Climatescope* 2015, placing it 17th on the list of countries overall. The country gained six places on its ranking in 2014 thanks to improved scores on Enabling Framework Parameter I and Clean Energy Investment and Climate Financing Parameter II.

The country was strongest on Parameter I, where it placed second globally, behind only Uruguay. This reflected growth in its already high proportion of clean energy generating capacity.

On Parameter II, Rwanda's score rose sharply thanks to an increase in the growth rate of clean energy investment.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the country's score was slightly better than average. It was supported by a relatively high number of distributed clean energy value chains and service providers.

Rwanda was ranked 47th on Greenhouse Gas Management Activities Parameter IV as it has no carbon reduction policies.

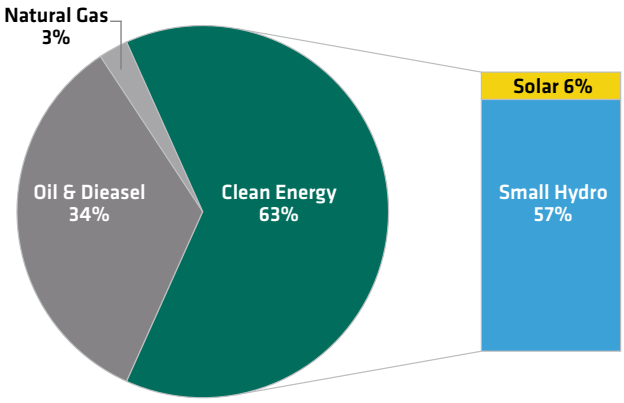
For further information, access www.global-climatescope.org/en/country/rwanda

OVERVIEW

Rwanda has one of the smaller energy sectors among sub-Saharan countries – but one with a lot of activity. The government is pressing toward two ambitious targets by June 2018: to increase Rwanda's power capacity to 563MW and access to electricity by its residents to 70%.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

140.6MW total installed capacity



Source: Bloomberg New Energy Finance, Rwanda Energy, Water and Sanitation Authority, Rwanda Utilities Regulatory Authority

The government has several tools to hit its 563MW target: tenders, unsolicited proposals, a small hydro feed-in tariff, mini-grids and utility reform. Renewables supply most of the country's power, with 57% hydro and 6% solar; the rest is mostly diesel. The capacity pipeline has solar and hydro falling just below 50% of the total by July 2018, with a natural gas recovery project and peat taking greater shares.

In 2014, Rwanda commissioned the largest PV project in sub-Saharan Africa outside South Africa. The 8.5MW solar farm was developed by GigaWatt Global and constructed by Scatec Solar, which is also an equity investor. Norfund, FMO, OPIC and the Emerging Africa Infrastructure Fund were other investors in the $23.7m project.

KEY POLICIES

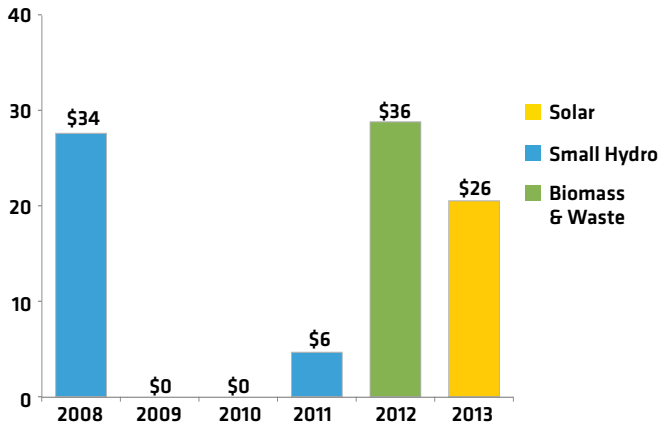
Energy Target	Increase total capacity to 563MW and electrification to 48% by 2017.
Feed-in Tariff	Specifically for hydro projects smaller than 10MW, fixed for three years then subject to review.
Auction	Held by the Energy Water and Sanitation Authority specifically for solar capacity of 18.5MW in 2013.
Debt/Equity Incentives	Grants for household biogas digesters and for subsidized connections to the grid. National fund for low carbon and energy innovation to be operational by 2016.
Tax Incentives	There are regional and national tax reductions and import duty exemptions for a range of energy supply equipment, and also accelerated depreciation for projects.

Source: Bloomberg New Energy Finance Policy Library

Feed-in tariffs are the main support for small hydro and micro-hydro projects. Developers have complained that the current FiTs, at $67–$166/MWh, are not high enough to support new projects. The Rwanda Utilities Regulatory Authority (RURA), is considering whether to raise the FiTs, and needed to publish new regulations in 2015 to avoid the scheme lapsing.

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

$102.0m total cumulative investment



Source: Bloomberg New Energy Finance

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

RURA is also producing new regulations for mini-grids. The new regulations will simplify the licensing process and create three new forms of mini-grids. They will also provide for new 'small power distribution providers' serving up to 20,000 customers without being involved in generation.

The new electric utility, the Rwanda Electricity Group (REG), is a wholly owned government enterprise. Operations are carried out by two subsidiaries – the Energy Development Corporation Limited (EDCL) and the Energy Utility Corporation Limited (EUCL). EDCL supports new capacity development – by itself and independent power producers. EUCL is a more traditional utility, operating generation and selling the power.

Senegal

GDP: **$15.6bn**
Five-year economic growth rate: **3.8%**
Population: **14.5m**
Total clean energy investments, 2009-2014: **$73.2m**
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 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
37	36	0.86

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

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.

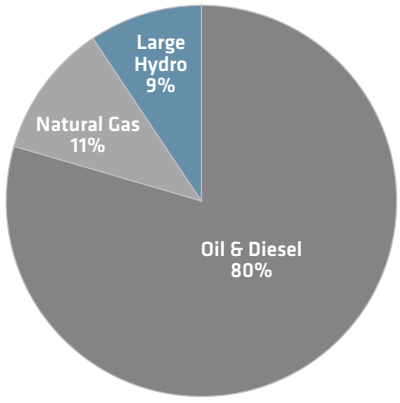
For further information, access www.global-climatescope.org/en/country/senegal

OVERVIEW

Senegal, which in late 2014 discovered offshore oil reserves, is first and foremost a country with abundant solar, wind and bio-energy 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.

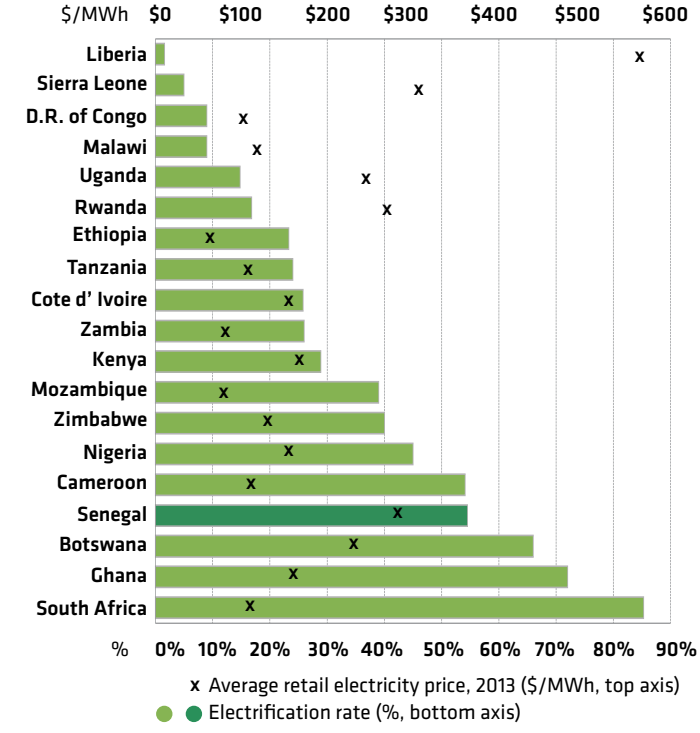
KEY POLICIES

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-scale solar thermal and PV, small hydro, biomass and 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.

WEST AFRICA

Sierra Leone

GDP: **$4.9bn**
Five-year economic growth rate: **13.7%**
Population: **6.2m**
Total clean energy investments, 2009-2014: **$382.0m**
Installed power capacity: **219.8MW**
Renewable share: **40.4%**
Total clean energy generation: **154.0GWh**
Top energy authority: **Ministry of Energy and Power**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
44	40	0.79

PARAMETER	RANKING	SCORE
I. Enabling Framework	28	1.19
II. Clean Energy Investment & Climate Financing	27	0.49
III. Low-Carbon Business & Clean Energy Value Chains	44	0.86
IV. Greenhouse Gas Management Activities	51	0.27

SCORE SUMMARY

Sierra Leone scored 0.79 in *Climatescope* 2015, placing it 40th on the list of countries overall. The country's highest score was on Clean Energy Investment and Climate Financing Parameter II.

On Enabling Framework Parameter I, Sierra Leone gained five places to rank 28th. Its score was supported by an increase in the volume of installed clean energy capacity, relatively high diesel and kerosene prices and growing demand for power.

The country was also positioned quite high on Parameter II. Although it slipped one place to 27th, the score was underpinned by investment to date – particularly in the Addax plant – and a modest recent increase.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Sierra Leone was placed 44th, a decline of two places. This reflected the small number of service providers and value chains.

On Greenhouse Gas Management Activities Parameter IV, the country sat in 51st position.

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

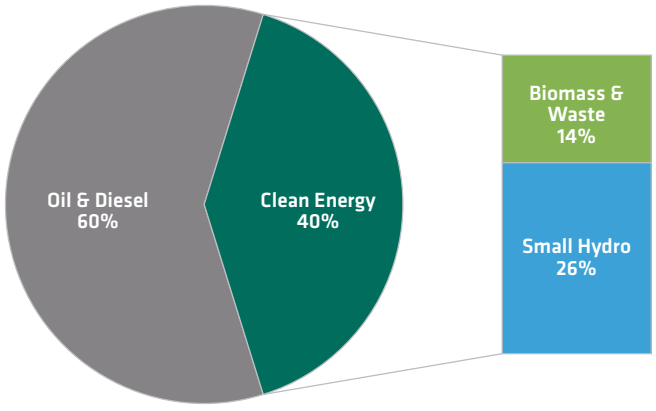
OVERVIEW

Sierra Leone's electrification rate, estimated at 9%, is one of the lowest in the world. Average electricity tariffs are high ($0.27 per kWh), but were considerably higher in 2008 ($0.41 per kWh) before the rehabilitation of the Bumbuna hydro power plant.

Much of Sierra Leone's infrastructure, including its power network, was destroyed during the war and is being rebuilt slowly. At the end of 2014, total installed capacity on the national grid around the capital Freetown was 98MW, comprising small hydro (56MW), thermal (27MW) and biomass (15MW). However, hydro generation decreases drastically during the three-month dry season. Captive thermal generation by industry – predominantly owned by mining companies – is estimated at around 90MW. Transmission and distribution infrastructure is in poor condition resulting in power losses of up to 40%.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

220MW total installed capacity



Source: Bloomberg New Energy Finance, UNDP, Addax Bioenergy

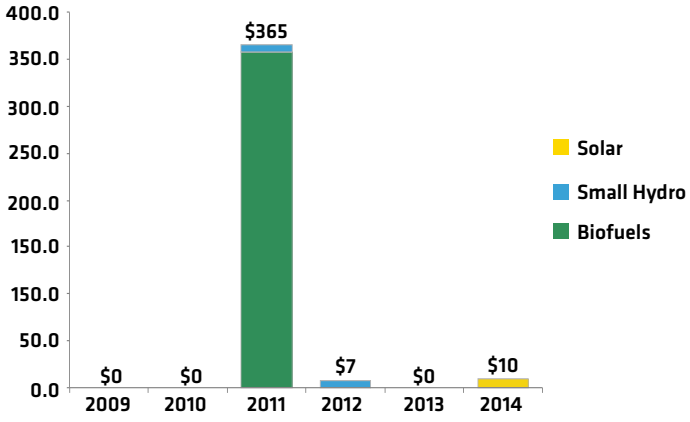
In 2011, the National Electricity Act mandated the separation of the National Power Authority, the state-owned utility, into separate companies for generation and transmission, on the one hand, and distribution on the other. This unbundling took effect on 1 January 2015, with the creation of the Electricity Generation and Transmission Company and the Electricity Distribution and Supply Authority.

In addition, the National Electricity Act opened the door to investment by independent power producers. Despite a lack of specific policy incentives, the country has been relatively successful in attracting private investment to the power sector in recent years, driven by its ambition to reach 1GW by 2017.

The Bumbuna hydro power plant (50MW), funded by development partners, was commissioned in 2011. In 2013 the government agreed with Joule Africa and Endeavor Energy to add an additional 200MW to the Bumbuna site. The project was estimated to cost $750m, but there are doubts over whether the project will go ahead. In May 2014, the 32MW Addax biomass plant, running on bagasse feedstock and adding 15MW to the national grid, was commissioned, though it has recently faced financial and technical difficulties. In 2014, the government announced it had awarded a contract to build a 6MW PV plant in Freetown.

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

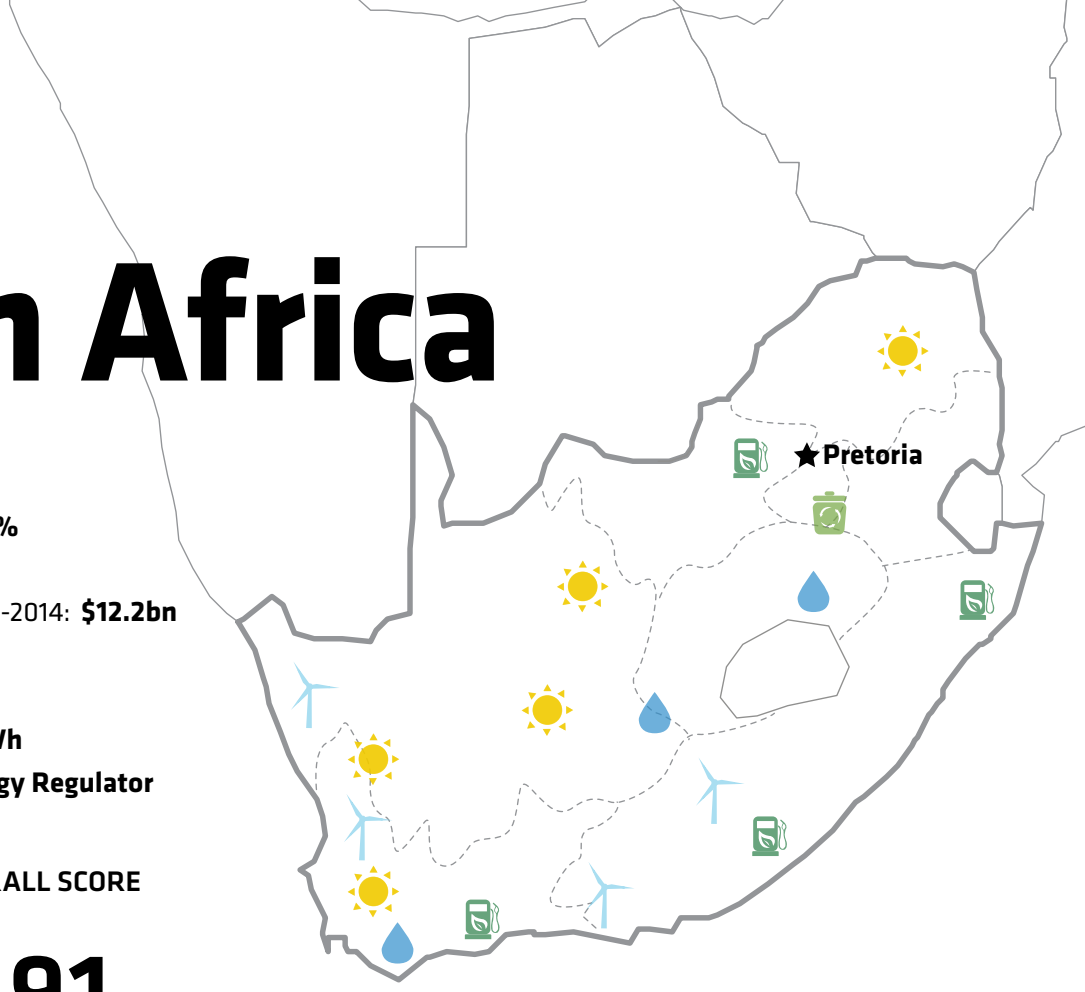
$382m total cumulative investment



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

A transmission project to interconnect the West African Power Pool countries of Sierra Leone, Guinea, Liberia and Ivory Coast was approved in 2013 and is expected to be completed by 2017.

South Africa



GDP: **$349.8bn**
Five-year economic growth rate: **-1.4%**
Population: **54.0m**
Total clean energy investments, 2009-2014: **$12.2bn**
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.

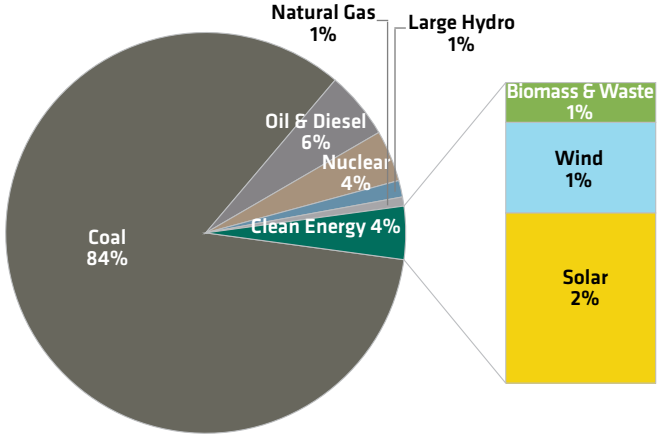
For further information, access www.global-climatescope.org/en/country/south-africa

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.

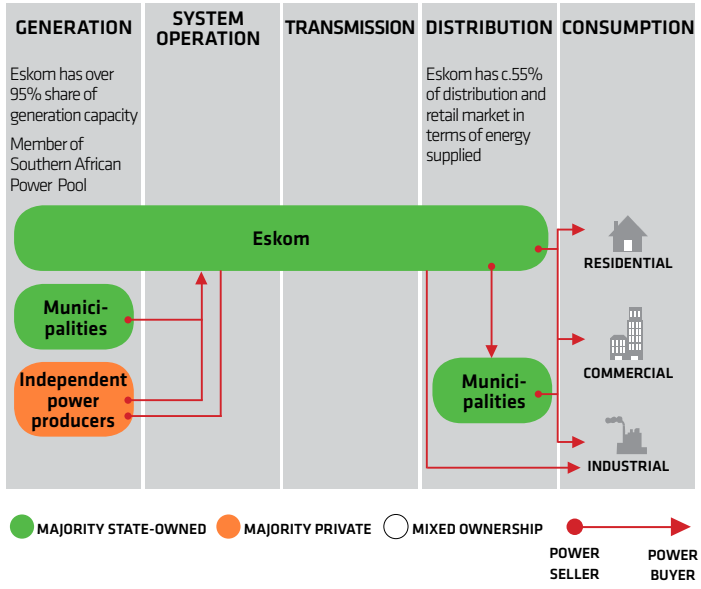
The 2010 plan is considered somewhat outdated due to a slow-down in economic growth and costs associated with various technologies. An updated plan was released in 2013 which reduced the capacity target to 81GW, but this was never promulgated.

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.

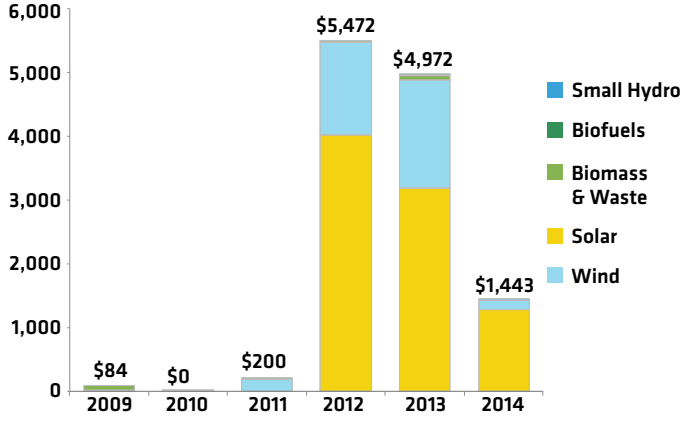
In 2014, South Africa began to reap the rewards of the REIPPP tenders, with the total installed renewable capacity surpassing 1.3GW. The largest contributor was solar PV with 774MW, followed by wind with 570MW.

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)

$12.2bn 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.

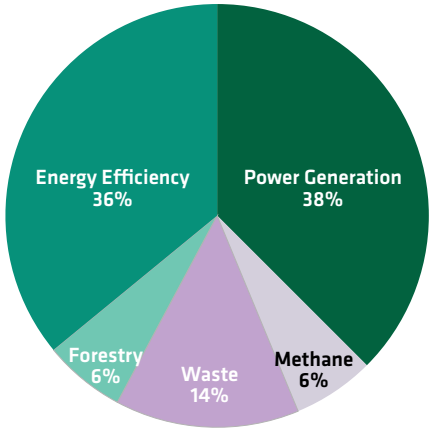
FINANCIAL INSTITUTIONS IN CLEAN ENERGY

✓	**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

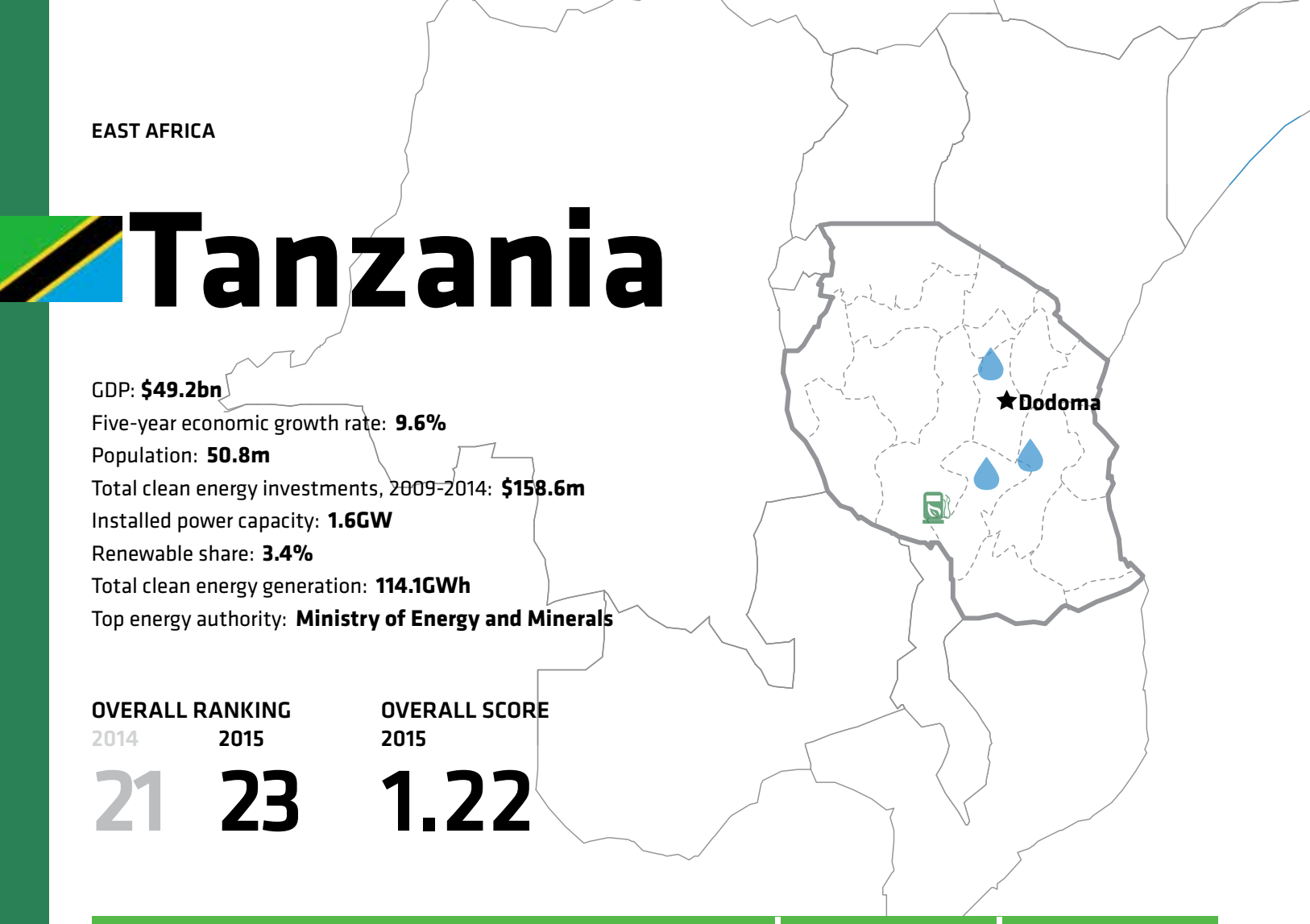
Sector / Quantity	Available Sub-Sector, Unavailable Sub-Sector
Biofuels	**Producers ; Engineering ; O&M ;** Equipment Manufacturing ; **Distribution and Blending**
Biomass & Waste	**Project Development ; Engineering ; O&M ; Equipment Manufacturing ; Feedstock Supply**
Geothermal	Project Development ; 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.

EAST AFRICA

Tanzania



GDP: **$49.2bn**
Five-year economic growth rate: **9.6%**
Population: **50.8m**
Total clean energy investments, 2009-2014: **$158.6m**
Installed power capacity: **1.6GW**
Renewable share: **3.4%**
Total clean energy generation: **114.1GWh**
Top energy authority: **Ministry of Energy and Minerals**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
21	23	1.22

PARAMETER	RANKING	SCORE
I. Enabling Framework	17	1.37
II. Clean Energy Investment & Climate Financing	29	0.48
III. Low-Carbon Business & Clean Energy Value Chains	19	2.56
IV. Greenhouse Gas Management Activities	33	0.97

SCORE SUMMARY

Tanzania scored 1.22 in *Climatescope* 2015, placing it 23rd on the list of countries overall. This was very slightly lower than in 2014 but by and large the country's comparative performance was level. Its best ranking was on Enabling Framework Parameter I.

Tanzania's placement on Parameter I was unchanged at 17th overall. It performed well on policy and regulation thanks to its robust regulatory framework for distributed energy and energy access policies.

On Clean Energy Investment and Climate Financing Parameter II, the country rose to 29th, reflecting a slight uptick in investment from the previous year.

Tanzania ranked 19th on Low-Carbon Business & Clean Energy Value Chains Parameter III, a decline on the previous year, as the number of financial institutions active in the sector fell.

The country also saw some slippage on Greenhouse Gas Management Activities Parameter IV, to 33rd, but remained comparatively strong in the carbon offsets category.

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

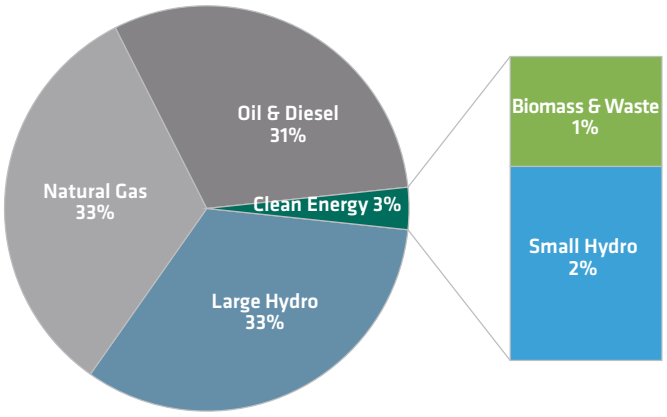
OVERVIEW

Tanzania's power sector is operated by state-owned utility TANESCO, which has a monopoly on transmission and distribution and dominates generation. Large hydro makes up over one-third of the 1.5GW of total capacity, but in recent years low reservoir levels reduced its availability and increased reliance on diesel generation. Several independent power producers participate in the market, both for large-scale gas generation and under a region-leading small power producer program.

Under the Electricity Supply Industry Reform Strategy and Roadmap, published in late 2014, the government targets 10.7GW of overall capacity by 2025, two-thirds of it from gas and coal. It only foresees modest renewables capacity by 2025: 100MW of solar and 200MW each of geothermal and wind.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

1.6GW total installed capacity



Source: Bloomberg New Energy Finance, Tanzania Ministry of Energy & Minerals, Rural Energy Agency, Tanzania Electric Company

KEY POLICIES

Feed-in Tariff	A new feed-in tariff for projects up to 10MW, superseding the standardized PPA program.
Energy Target	A 100MW solar and 200MW geothermal and wind target by 2025.
Debt/Equity Incentives	The Rural Energy Fund offers grants for project feasibility studies and customer connections, as well as construction loans.
Tax Incentives	Import duty exemptions and VAT refunds are available on a case by case basis, and accelerated depreciation is allowed for solar projects.
Utility Regulation	A standardized 15-year PPA is available for power projects smaller than 10MW.

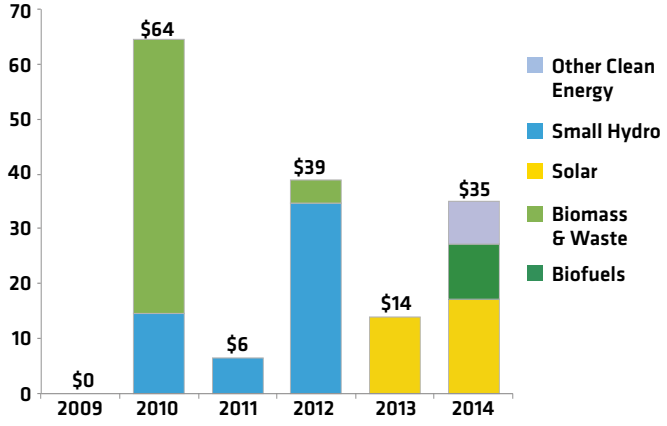
Source: Bloomberg New Energy Finance Policy Library

The roadmap also sets out a power sector reform process designed to see TANESCO fully unbundled by 2025. The reforms are divided into four stages, with ambitious timelines. By the end of 2017, the generation segment of TANESCO should be split from transmission and distribution, with an independent market operator set up to manage wholesale and retail trading.

The country has had a framework for private developers to build on or off-grid projects up to 10MW for several years. This has encouraged a pipeline of more than 15 projects, with as many as 60 more at earlier stages. The framework was superseded by a feed-in tariff in 2015. Tanzania should soon have its first utility-scale solar plant, a 5MW project by developer NextGen, while plans for the Singida wind farm continue.

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

$158.6m total cumulative investment



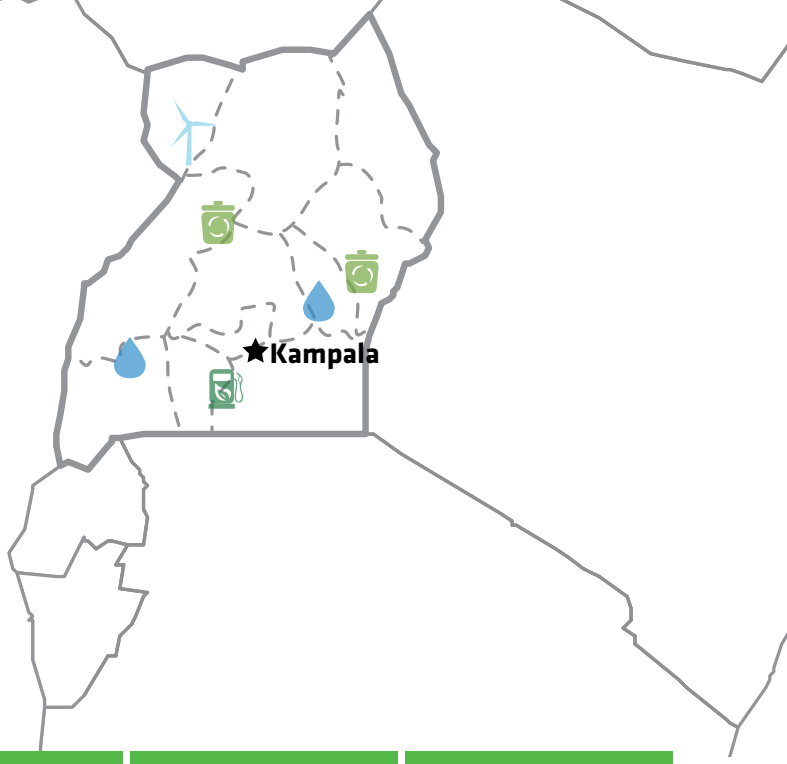
Source: Bloomberg New Energy Finance
Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

One critical issue holding back investment is non-payment by the utility to independent generators large and small under the terms of their PPAs. TANESCO is making a concerted effort to pay off its debts of over $400m by the end of 2016, in line with the roadmap, though a support package from donors was delayed at the end of 2014 and through Q1 2015 by a corruption scandal.

EAST AFRICA

Uganda

GDP: **$26.3bn**
Five-year economic growth rate: **7.0%**
Population: **38.8m**
Total clean energy investments, 2009-2014: **$115.4m**
Installed power capacity: **906.5MW**
Renewable share: **16.9%**
Total clean energy generation: **856.0GWh**
Top energy authority: **Electricity Regulatory Authority**



OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
10	9	1.68

PARAMETER	RANKING	SCORE
I. Enabling Framework	07	1.61
II. Clean Energy Investment & Climate Financing	20	0.65
III. Low-Carbon Business & Clean Energy Value Chains	06	3.85
IV. Greenhouse Gas Management Activities	14	1.77

SCORE SUMMARY

Uganda scored 1.68 in *Climatescope* 2015, placing it 9th on the list of countries overall. The country's ranking climbed one place on the list from 2014. Its highest ranking came on Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Enabling Framework Parameter I, Uganda climbed to 7th place overall. This was partly driven by its policy score and an improvement in regulations governing distributed energy.

On Clean Energy Investment and Climate Financing Parameter II, the country's score increased, due to a jump in the volume of loans and grants, among other things.

Uganda's strong showing on Parameter III was, in part, supported by a relatively large number of service providers, in both the distributed and utility-scale clean energy sectors.

On Greenhouse Gas Management Activities Parameter IV, the country scored higher owing to a comparatively strong performance on the Clean Development Mechanism Risk Indicator.

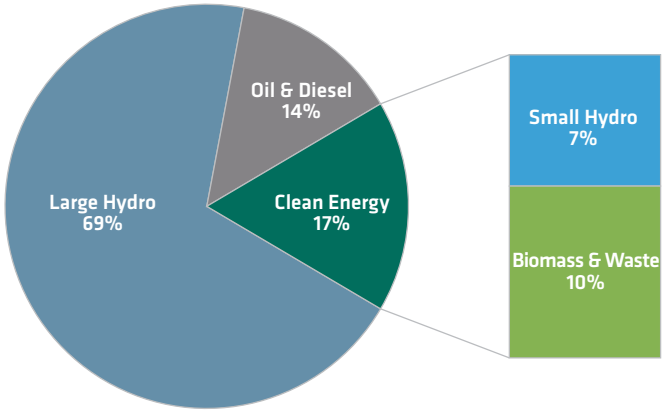
For further information, access www.global-climatescope.org/en/country/uganda

OVERVIEW

Uganda has just over 900MW of power-generating capacity, of which 17% comes from renewable sources excluding large hydro. The state-owned Uganda Electricity Generating Company Limited holds just under half – all of it large hydro – of the country's on-grid generation capacity, with another quarter owned by a third large hydro plant. That said, Uganda has a target to increase the share of modern renewables in total energy consumption to 61% by 2017 from 4% in 2007 - in 2014 it stood at 25%.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

906.5MW total installed capacity



Source: Bloomberg New Energy Finance, Uganda Electricity Regulatory Authority, Umeme

One of the few sub-Saharan African countries to have liberalized its energy market, Uganda's generation, transmission and supply segments were unbundled in 2001. The generation and transmission companies are both state-owned, while the supply company is privately owned. Independent power producers currently account for 58% of generation capacity, though UEGCL intends to triple its capacity with a 600MW hydropower project.

KEY POLICIES

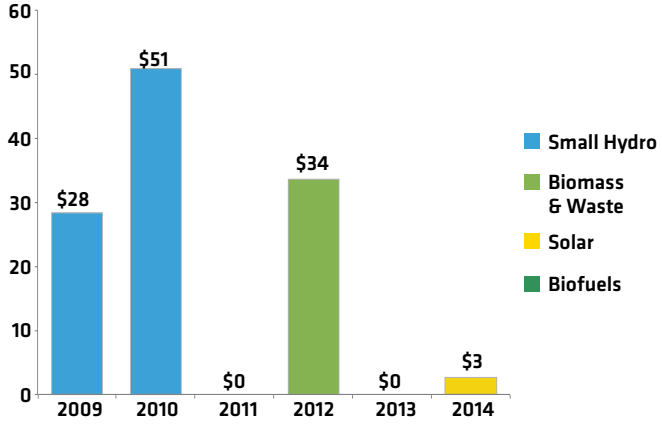
Energy Target	The 2007 Renewable Energy Policy sets a target for 61% renewable energy in total energy consumption by 2017, as well as technology-specific capacity goals.
Feed-in Tariff	Competitively allocated 20-year tariffs are available for limited amounts of small hydro, biomass, biogas, geothermal and wind – but not solar. Supplemented by the GET FiT scheme to provide finance and reduce risk.
Auction	The GET FiT solar facility offers competitively allocated grants for on-grid PV projects and supported 20MW of projects in 2014.
Debt/Equity Incentives	Credit support instruments to reduce risk, and public funding channeled to priority rural electrification projects through competitive bidding.
Biofuels	A 20% target biofuel quota in petroleum products with no time constraint is expected to be approved in parliament by the end of 2015.
Tax Incentives	Investors are eligible for a range of regional and national tax reductions and import duty exemptions.

Source: Bloomberg New Energy Finance Policy Library

A feed-in tariff in place since 2007 had limited success in encouraging capacity build. As a result, in 2013 the government, with development partners, launched a program aiming to fast-track 20-25 small-scale renewable projects. Known as GET FiT, it is expected to add some 150MW of renewable capacity to the Ugandan electricity grid by 2018. Originally only hydro, cogeneration (bagasse) and biomass projects were eligible. In 2014, Uganda added solar PV projects to the scheme and introduced a feed-in tariff for the technology, aiming to develop 20-30MW in just over a year.

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

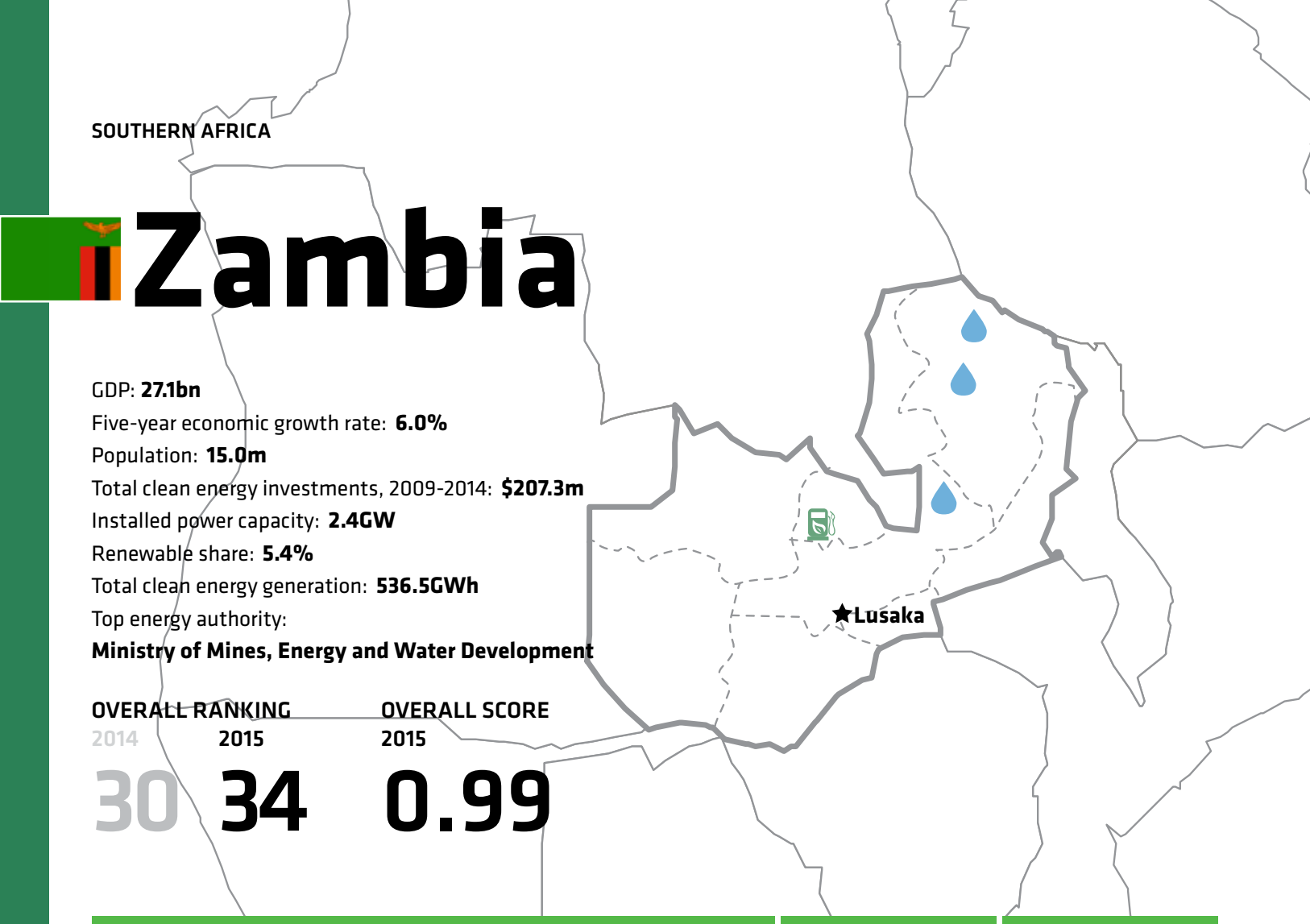
$115.4m total cumulative investment



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

By the end of 2014, 15 projects had been approved consisting of 28MW of biomass, 80MW of small hydro and 20MW of solar PV, with commissioning expected by 2016. The third and final round of tenders for hydro, bagasse and biomass capacity will be completed in 2015 while an additional round of solar PV is expected in the following year. Credit-enhancement and -support instruments are available to private-sector-led projects via the government agency, the Uganda Energy Credit Capitalisation Company. Such tools include a partial risk guarantee, bridge financing and subordinated debt finance.

Zambia



GDP: **27.1bn**
Five-year economic growth rate: **6.0%**
Population: **15.0m**
Total clean energy investments, 2009-2014: **$207.3m**
Installed power capacity: **2.4GW**
Renewable share: **5.4%**
Total clean energy generation: **536.5GWh**
Top energy authority:
Ministry of Mines, Energy and Water Development

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
30	34	0.99

PARAMETER	RANKING	SCORE
I. Enabling Framework	38	0.95
II. Clean Energy Investment & Climate Financing	39	0.30
III. Low-Carbon Business & Clean Energy Value Chains	23	1.99
IV. Greenhouse Gas Management Activities	22	1.51

SCORE SUMMARY

Zambia scored 0.99 in *Climatescope* 2015, placing it 34th on the list of countries overall, a drop of four places compared with 2014. Its highest ranking was on Greenhouse Gas Management Activities Parameter IV.

On Enabling Framework Parameter I, Zambia dropped one place to rank 38th. Areas of strength included the presence of regulations governing the distributed energy sector and energy access policies.

The country slipped one place to 39th position on Clean Energy Investment and Climate Financing Parameter II, reflecting the absence of any new investment in clean energy.

Zambia also fell on Low-Carbon Business & Clean Energy Value Chains Parameter III, losing three places to rank 23rd. A number of distributed energy service providers bolstered its score in this area.

On Parameter IV, the country was placed 22nd, a relatively strong position that was largely built on its historic carbon offsetting activity relative to total emissions.

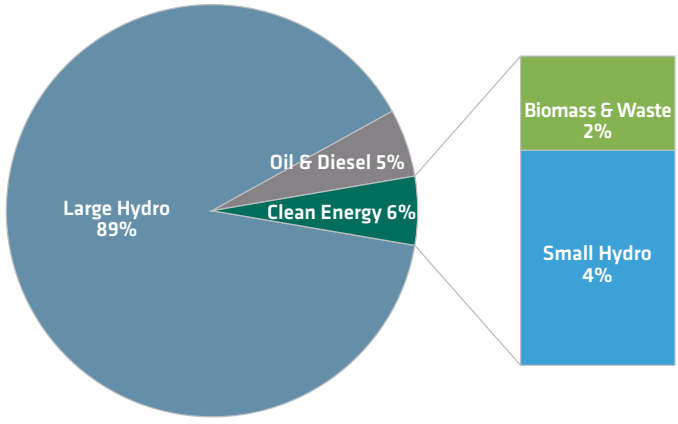
For further information, access www.global-climatescope.org/en/country/zambia

OVERVIEW

Zambia's installed capacity is 2.4GW, of which 90% – some 2.1GW – consists of large hydro. The remainder is made up of oil and diesel plants, while captive biomass projects power the country's sugar estates and surrounding areas. Due to low rainfall levels, the country's power deficit amounts to over 500MW or 30% of peak demand.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.4GW total installed capacity



Source: Bloomberg New Energy Finance, Zambia Electricity Supply Corp, Zambia Sugar

National utility ZESCO generates nearly 95% of the power while two private on-grid generators make up the remainder using fossil-fuel and small hydro plants. Outside the state utility, a private transmission and distribution company purchases 55% of the generated electricity for the Copperbelt mining region. Over 90MW of the country's 130MW of non-large hydro renewable power capacity is provided by independent power producers (IPPs), though only 52MW is grid connected.

KEY POLICIES

Debt/Equity Incentives	Rural electrification fund can provide 50% of the capital for private rural electrification projects.
Tax Incentives	Small hydro and solar developers are eligible for tax holidays and import duty exemptions. Carbon tax applied on all motor vehicles since 2006.

Source: Bloomberg New Energy Finance Policy Library

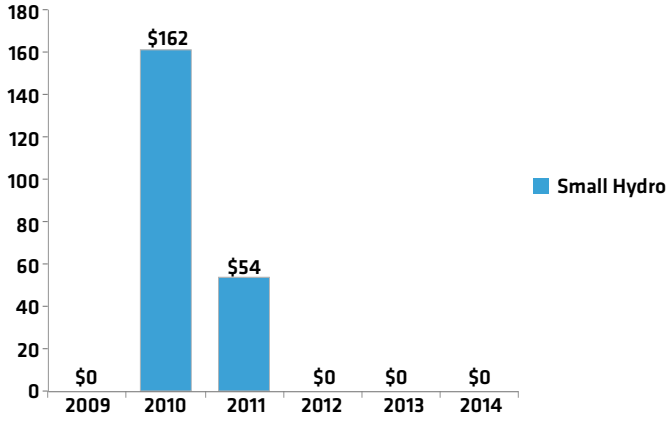
In summer 2015 the government signed an agreement for two 50MW PV projects under the International Finance Corporation's "Scaling Solar" program, with additional capacity mooted. ZESCO is currently expanding existing large hydro projects, with 360MW installed at the Kariba plant in 2014. The country is on track to add a further 120MW hydro project at Itezhi-Tezhi and its first coal power plant with the 300MW Maamba Collieries project, expected to be commissioned by early 2016.

The government offers tax incentives for developers of small hydro and solar projects, including import duty and VAT exemptions and tax holidays. Those policies have yet to drive any clean energy investment, however, reflecting the lack of wider renewable energy policy or cost-reflective electricity tariffs. The government raised tariffs in August 2015, but they are not yet cost reflective.

Zambia's Revised Sixth National Development Plan (2013-16) proposes introducing renewable energy and a feed-in tariff, as well as making use of ethanol and alternative fuels. Government consultations continue on the introduction of feed-in tariffs. The energy regulator is also developing guidelines for off-grid systems. The country previously developed a draft national renewable energy strategy which would seek to add 400MW of renewable energy by 2030, but the plan was never implemented.

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

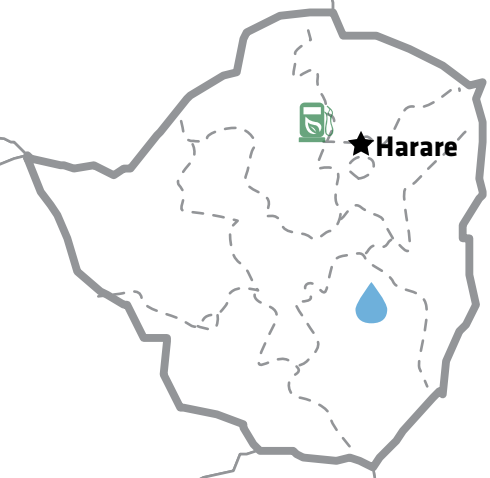
$207.3m total cumulative investment



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

SOUTHERN AFRICA

Zimbabwe



GDP[1]: **$13.7bn**
Five-year economic growth rate: **7.6%**
Population: **14.6m**
Total clean energy investments, 2009-2014: **$280.0m**
Installed power capacity: **2.0GW**
Renewable share: **4.8%**
Total clean energy generation: **190.8GWh**
Top energy authority:
Ministry of Energy and Power Development

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
43	43	0.70

PARAMETER	RANKING	SCORE
I. Enabling Framework	42	0.85
II. Clean Energy Investment & Climate Financing	48	0.21
III. Low-Carbon Business & Clean Energy Value Chains	38	1.04
IV. Greenhouse Gas Management Activities	34	0.97

SCORE SUMMARY

Zimbabwe scored 0.70 in *Climatescope* 2015, placing it 43rd on the list of countries overall, the same position it held in 2014. The country's highest score was on Greenhouse Gas Management Activities Parameter IV.

On Enabling Framework Parameter I, Zimbabwe slipped one place to rank 42nd. Its score was supported by the presence of energy access policies and relatively high diesel and kerosene prices.

On Clean Energy Investment and Climate Financing Parameter II, the country was positioned near the bottom of the list. It took 48th place, one lower than in 2014, largely due to the lack of new investment.

Zimbabwe was placed 38th on Low-Carbon Business & Clean Energy Value Chains Parameter III, a decline of six places. Its score is supported by a modest number of clean energy service providers.

On Parameter IV, the country was ranked 34th, with moderately good scores for the number and diversity of carbon credits generated.

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

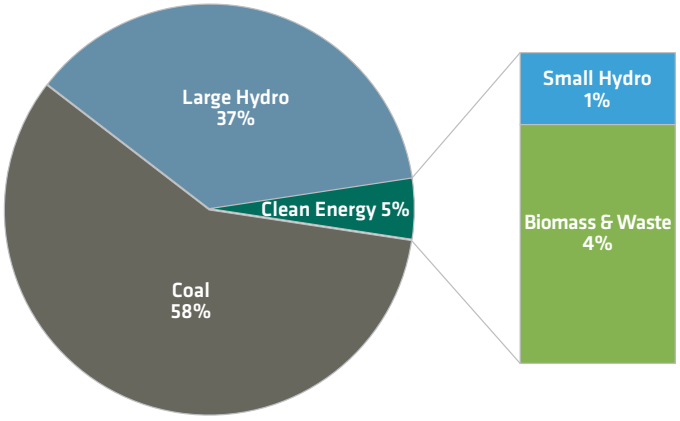
OVERVIEW

Of the 2.0GW of installed capacity in Zimbabwe, national power generator, Zimbabwe Power Corporation (ZPC) owns 1.9GW. Those plants suffer from reliability issues, and currently only around 900MW is available, equating to 50% of installed capacity and meeting 40% of peak connected demand. Imports from its neighbours have been curtailed due to non-payment.

Zimbabwe's power sector is split between ZPC and Zimbabwe Electricity Transmission and Distribution Co (ZETDC) which are both subsidiaries of Zimbabwe Electricity Supply Authority (ZESA).

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.0GW total installed capacity



Source: Bloomberg New Energy Finance, Zimbabwe Power Company, Nyangani Renewable Energy

The power generation sector recently received a boost with the financing of the Lake Kariba South expansion project to add 300MW more large hydro capacity. ZESA and ZPC are currently seeking finance to upgrade the Hwange coal plant and develop a coal bed methane project in Lupane.

KEY POLICIES

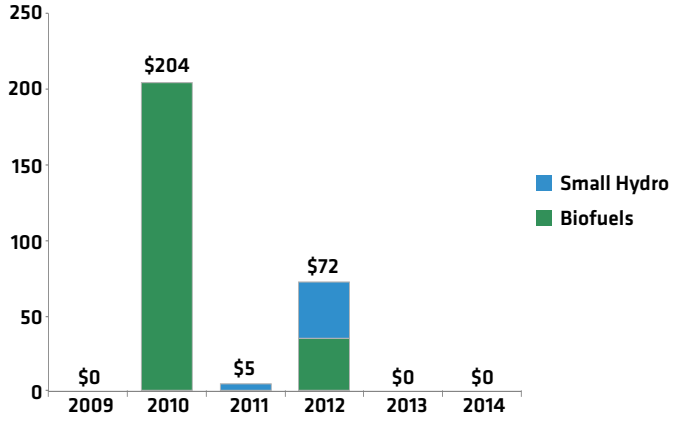
Feed-in Tariff	A 20-year tariff for small hydro, wind, solar, biomass and biogas projects up to 10MW. Implementation remains pending the release of the national renewable energy strategy.
Biofuels	A mandate to blend ethanol with gasoline lowered from 15% in 2015.
Debt/Equity Incentives	An infrastructure fund offers long-term debt and equity but has not yet disbursed any to renewable energy projects. The rural electrification fund aims to achieve 100% access by 2040 but has had operational challenges.
Tax Incentives	Energy investors are eligible for ten-year income tax holidays.

Source: Bloomberg New Energy Finance Policy Library

Zimbabwe's clean energy sector was also boosted in 2014 as Nyangani Renewable Energy commissioned a 15MW small hydro plant. 96MW of the country's 120MW (non-large hydro) renewables capacity comes from three biomass plants, with the rest made up of small hydro.

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

$280.0m total cumulative investment



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

The country's regulatory framework makes it relatively easy for an independent power producer (IPP) to set up a project. One stumbling block: signing a power purchase agreement (PPA) with ZETDC in order to sell into the grid, as it suffers cash-flow shortages and the IPP has to draw up the framework for an agreeable tariff, which needs approval from the regulator.

Zimbabwe still lacks a clear renewable energy policy. Discussions continue over the implementation of FiTs, which were first proposed in 2013.

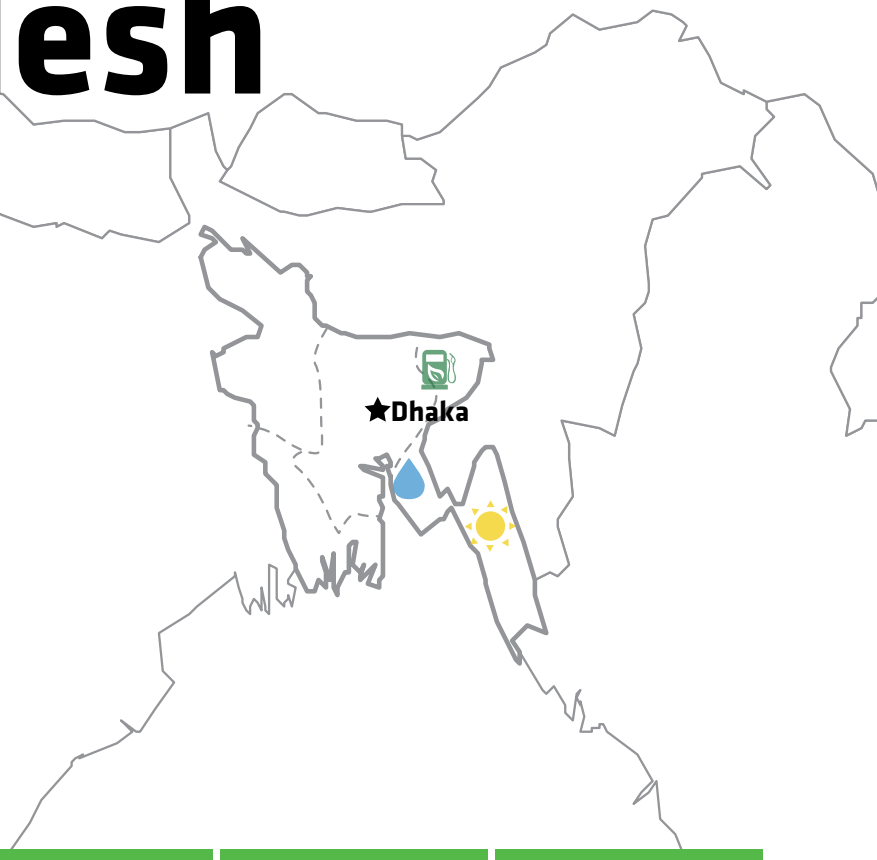
There is a biofuels blending mandate in force, which is set at 5%. The mandate changes sporadically depending on supply and has reached up to 15%. While the government intends to raise the mandate, investment has been slow due to non-cost reflective fuel prices and public resistance over perceived damage to engines.

Zimbabwe targets universal electricity access by 2040 – up from around 31% – but the rural electrification fund has struggled since inception due to cash-flow shortages.

ASIA COUNTRY PROFILES

Two photographs taken by astronauts—one in daylight and one at night—show the peninsula of southern India. Astronauts pass from the day side of the planet to the night side sixteen times every 24 hours and therefore quickly adapt to the very different visual conditions of night and day.

Bangladesh



GDP: **$173.8bn**

Five-year economic growth rate: **8.6%**

Population: **158.5m**

Total clean energy investments, 2009-2014: **$25.9m**

Installed power capacity: **10.8GW**

Renewable share: **0.0%**

Total clean energy generation: **0.0GWh**

Top energy authority:

Ministry of Power

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
18	24	1.20

PARAMETER	RANKING	SCORE
I. Enabling Framework	21	1.30
II. Clean Energy Investment & Climate Financing	18	0.66
III. Low-Carbon Business & Clean Energy Value Chains	18	2.57
IV. Greenhouse Gas Management Activities	43	0.65

SCORE SUMMARY

Bangladesh scored 1.21 in *Climatescope* 2015, ranking it 24th among countries overall. The country's ranking fell six places on the list from 2014, largely due to a nine-place decline in its rank on Clean Energy Investment Parameter II in general and on its Green Micro Finance Indicator, in particular.

On Enabling Framework Parameter I, Bangladesh scored 1.30 thanks to a particularly good performance on its Distributed Energy Regulatory Framework Indicator.

On Clean Energy Investment and Climate Financing Parameter II, the country scored 0.67, down from 0.96 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the country saw its score unchanged at 2.57.

On Greenhouse Gas Management Activities Parameter IV, Bangladesh scored just 0.65 because of a lack of effective emissions reduction policies.

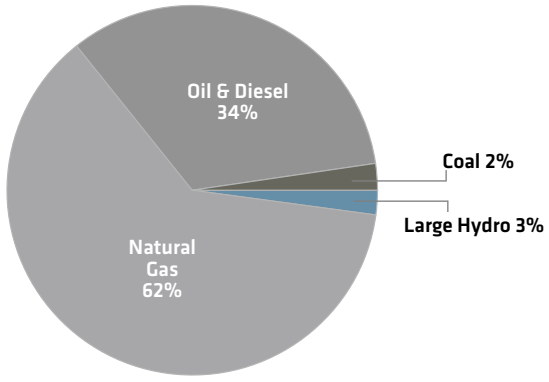
For further information, access www.global-climatescope.org/en/country/bangladesh

OVERVIEW

Bangladesh – one of the countries most vulnerable to climate change – generates most of its renewable energy from small scale installations. In 2008, it set a target of 5% renewable energy share, equivalent to 800MW by 2015. It claims to have installed 403MW of renewable capacity, including a large hydro project of 230MW.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

10.8GW total installed capacity



Source: Bloomberg New Energy Finance, Bangladesh Power Development Board

As much as 98% of the country's 10.8GW installed capacity is based on fossil fuels (70% of which is natural gas), with large hydro representing the remaining 2%. Due to rise in economic activity, Bangladesh installed more than 2GW of oil and diesel based rental power plants (for three to seven years) during 2010-13. About 60% of the population has access to electricity.

KEY POLICIES

Auctions	As of December 2013, two tenders for solar projects had been held. 3MW was allocated, with a further 30MW still to be auctioned.
Debt-Equity Incentives	The World Bank awarded a $10m grant to install 1,300 solar-powered irrigation pumps on 30 September 2013. It also offered a $386m loan to help facilitate energy access and efficiency and clean cooking solutions, of which $155m has been issued.
Energy Target	In 2008, the government set a target of 5% of electricity consumption from renewable energy by 2015 and 10% by 2020. A solar program funded by the Asia Development Bank is targeting 500MW of solar energy by 2016.

Source: Bloomberg New Energy Finance Policy Library

In new renewable development, the country has its main focus on solar and wind. It launched a '500MW by 2016' solar program in 2013, which was developed with the help of Asian Development Bank. More than 35MW of solar projects are under various stages of development under this scheme.

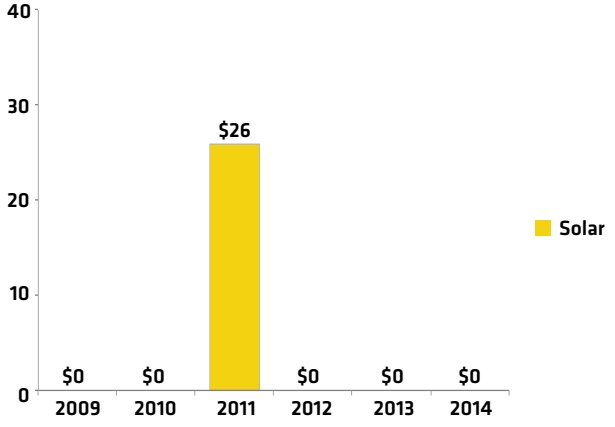
Bangladesh has had success in installing solar home systems (SHS) that were introduced by Grameen Shakti through a micro-credit facility. Two World Bank funded programs, Rural Electrification and Renewable Energy Development I and II (RERED) have been instrumental in this success. By the end of 2014, about 3.5m or 10%, of the country's households had installed SHS systems. The target of the program is to reach a total of 6m SHS installations by 2016.

Bangladesh's wind power potential is being assessed. Bangladesh Power Development Board (BPDB) signed a deal for the development of a 60MW wind farm in Cox's Bazaar in May 2014. BPDB also announced a 100MW project in 2013 but did not proceed with the plans.

BPDB is the sole buyer of all of the power generated in the country and sells it to the distribution utilities.

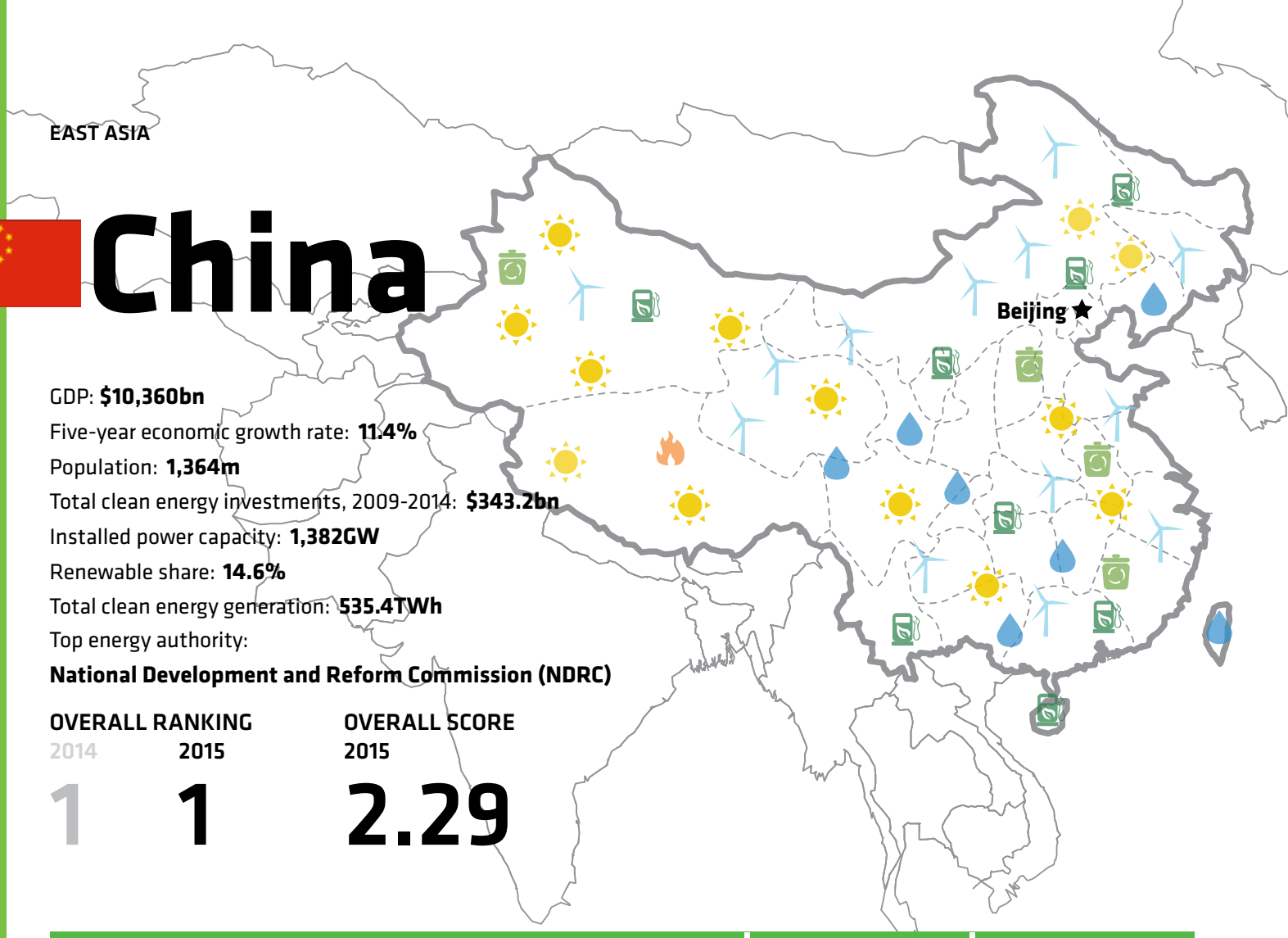
ANNUAL INVESTMENT IN CLEAN ENERGY, 2009-2014 ($m)

$25.9m total cumulative investment



Source: Bloomberg New Energy Finance

China



GDP: **$10,360bn**

Five-year economic growth rate: **11.4%**

Population: **1,364m**

Total clean energy investments, 2009-2014: **$343.2bn**

Installed power capacity: **1,382GW**

Renewable share: **14.6%**

Total clean energy generation: **535.4TWh**

Top energy authority:

National Development and Reform Commission (NDRC)

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
1	1	2.29

PARAMETER	RANKING	SCORE
I. Enabling Framework	08	1.54
II. Clean Energy Investment & Climate Financing	05	1.46
III. Low-Carbon Business & Clean Energy Value Chains	01	5.00
IV. Greenhouse Gas Management Activities	01	3.24

SCORE SUMMARY

China scored 2.29 overall in *Climatescope* 2015, placing it first on the list of all *Climatescope* countries. China's 2015 overall score was a slight improvement on 2014's 2.23, when it also finished first among all countries surveyed.

The country's top ranking is based largely on its consistency in the top levels of all four Climatescope parameters. It scored no lower than eighth on any of them and was first on Low-Carbon Business & Clean Energy Value Chains Parameter III and Greenhouse Gas Management Activities Parameter IV.

On Enabling Framework Parameter I, China scored 1.54. It registered improvement from 2014 on both the Growth Rate of Installed Capacity and Clean Energy Electricity Generation indicators. That advance was partially offset by a decline on the Growth Rate of Power Demand Indicator.

On Clean Energy Investment and Climate Financing Parameter II, China scored 1.46. It improved on the Growth Rate of Clean Energy Investments Indicator while retreating somewhat on the Loans, Grants, Grant Programs Indicator.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, China saw its score remain unchanged at a perfect 5.00 due to its consistent investments in value chain segments present in the country.

On Greenhouse Gas Management Activities Parameter IV, China scored 3.24, up 0.12 from 2013, as more provinces set up local carbon emission targets than previously.

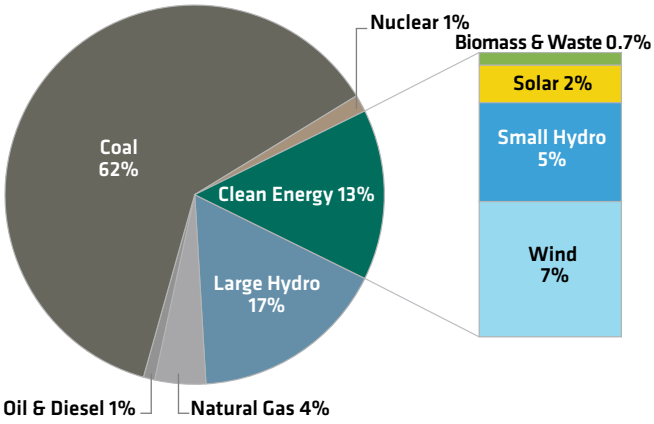
For further information, access www.global-climatescope.org/en/country/china

OVERVIEW

China, the world's second largest economy, is home to more power-generating capacity than any other nation on earth with 1,382GW on line as of year-end 2014. Renewables (non-inclusive of large hydro projects) represented 201GW (15%) with coal accounting for 62%, followed by large hydro at 17% and nuclear at 1.4%. China is also the world leader in terms of installed wind and solar capacity, having added 30GW in 2014 alone.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

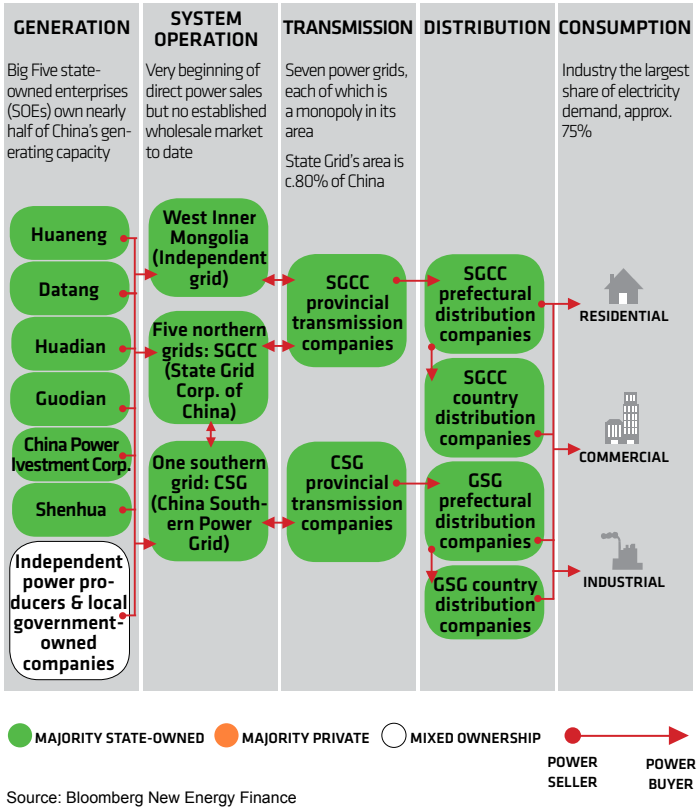
1.382GW total installed capacity



Source: Bloomberg New Energy Finance , Lawrence Berkeley National Lab, National Energy Administration
Note: Negligible values for geothermal cannot be graphically represented due to scale, see source data for the complete numbers.

POWER SECTOR STRUCTURE

Regulator: National Energy Administration



Source: Bloomberg New Energy Finance

In 2014, China maintained momentum in the deployment of renewables thanks to consistent policy support. But the country's remarkable jump has posed a major conundrum to China's transmission system, which continues to bottleneck clean power delivery. Curtailments were more frequent than ever in 2014 as power from not just wind projects, but from coal and nuclear plants failed to get delivered to consumers. Issues related to transmission are poised to continue unless the government follows through on proposed power sector reforms.

RENEWABLE ENERGY POLICY

China has in recent years provided generally consistent clean energy support at the federal level, with individual provinces also lending a hand. However, there were key instances in 2014 of policy changes that have the potential to at least temporarily interrupt the country's recent clean energy boom.

In December 2014, the National Development and Reform Commission (NDRC) announced a planned cut the onshore wind national feed-in tariff (FiT) to go into effect at the end of 2015. In addition, auctions for power contracts, efforts around the Golden Sun subsidy program, and central government project approvals all slowed in 2014.

Rather than focusing on short-term policies to boost development, the government has shifted attention to mid- to long-term goals, including quotas for renewable generation. Such a shift does have immediate implications for the market, however. The NDRC's planned cut to the wind FiT, for instance, has motivated developers to get as much capacity as they can on line before the benefit steps down in 2016. China will likely see another historic peak in 2015 with as many as 25.2GW of wind to be installed.

KEY POLICIES

Energy Targets	Proposed minimum quota of electricity from renewable energy sources by 2020. Power companies have targets for non-hydro renewable electricity generation whereas grid corporations and provinces have targets for purchase and consumption.
Energy Targets	16% energy intensity reduction by 2015 from 2010 levels.
Feed-in-Tariffs	National feed-in tariffs of $0.08-0.10/kWh for wind power. Scheduled for reduction in 2016 by $0.003 to $0.077-0.097.
Feed-in-Tariffs	National feed-in tariffs of $0.15-0.16/kWh for solar power, as of 2014.
Feed-in-Tariffs	National feed-in tariffs of $0.11/kWh for biomass power plants.
Debt-Equity Incentives	State-owned developers of large wind and solar projects can borrow at preferential rates; China Development Bank extends billions of dollars in credit to manufacturers
Tax Incentives	Less-developed provinces collect lower taxes on new business income (including from renewable energy projects) than do eastern provinces.

Source: Bloomberg New Energy Finance Policy Library

What becomes of the market in 2016 could well be dictated by the country's planned Renewable Portfolio Standard (RPS), or national clean energy quota that would mandate certain levels of clean power generation, transmission and consumption.

CAPACITY, NOT OPERATIONAL EFFICIENCY TARGETS

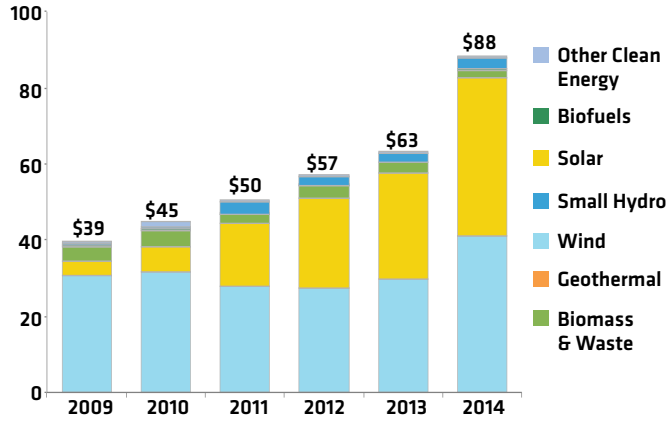
Already the global leader of installed renewable energy capacity, China added another 20.7GW of wind and 9.3GW of solar PV in 2014, representing more than one third of all clean energy added globally. In November, the State Council made its critical National Energy Development Plan (2014-2020) public. It aims to boost non-fossil energy sources vs primary energy consumption to 15% by 2020 from 10% in 2014. The implication: an additional 100GW of wind and solar will be needed online between 2015 and 2020.

The plan emphasizes new capacity build over the arguably more important issue of operational efficiency within China's power-generation matrix. With the country's overall economic growth slowing, utilization rates for existing coal, nuclear, wind and solar power projects have all fallen since 2013. Hydro projects (including large and small hydro), mainly in Yunnan and Sichuan provinces, have benefited from price cuts and rising cross-province exports.

Lower utilization rates are partly due to slower than expected economic growth, but delays in transmission network expansions are also to blame. Curtailments from wind and PV projects first began in 2010, then spread to other technologies in 2014. Gigawatts hours of generation have gone to waste and with them, substantial potential revenues for plant operators. The situation has been particularly challenging in northern provinces Heilongjiang, Jilin and East Inner Mongolia.

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

$343.2bn total cumulative investment



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

REFORM

All of this has underlined the importance of a larger overhaul of China's power market and reform efforts have advanced recently. In March 2015, the State Council released a major policy paper outlining segments it will target for further deregulation and restructuring. The core of this new round of reforms is to make the power system more efficient, deregulated and environmentally sustainable.

Among the challenges: splitting apart the functions of the monopoly State Grid Corporation of China, which today controls dispatch and retail operations. Such a change has been proposed in a reform documents but follow-through will be critical.

Despite the issue of grid congestion and slowing power demand growth, the pipeline of new-build power plants that has received regulatory approval to come online in the next five years is considerable. Meanwhile, to limit further wasted energy, State Grid has begun to explore the possibility of ancillary market services. Such a market could provide flexible responses to immediate demand spikes and dips, by either ramping output or shedding load.

LEAGUE TABLE

2014 Total Investments	$88,035m

Top Three Lead Debt Arrangers 2014 ($m)

1st	China Development Bank Corp	$147m
2nd	China Investment Corp	$134m
3rd	KFW	$43m

Top Three Equity Sponsors 2014 ($m)

1st	China Guodian Corp	$3,147m
2nd	State Power Investment Corp	$2,354m
3rd	China Huadian Corp	$2,185m

Top Three Asset Finance Deals, 2014 ($m)

Rank	Sector	Project	Developer	Value
1st		China Wind Portfolio CNNC Acquisition	CNNC Huihai Wind Power Co Ltd	$1,005m
2nd		Huanghe Hydropower Gonghe Longyangxia PV Plant Water Hybrid Phase II	Huanghe Hydropower Development Co	$917m
3rd		Datang Renewable Guazhou Beidaqiao No. 6 AB Wind Farm	Datang Renewable Power Co	$720m

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

CLEAN AIR

Concerns over poor air quality have risen up the Chinese Politburo agenda since 2012 and smog issues remain paramount in many of the country's major metropolitan areas. Beijing was smogged in every one in three days in 2014, undercutting the city's efforts to promote a business-friendly image.

In response, the central government has promoted national carbon credit trading, a new Environmental Law, fines and taxes on polluters, and coal usage caps, in addition to clean energy-friendly policies. The goal is to achieve a peak in economy-wide emissions by 2030 as promised by President Xi Jinping during a summit with US President Barack Obama in November 2014.

To date, pilot carbon credit trading schemes have been rolled out in select regions including the municipalities of Beijing, Shanghai, and Shenzhen, along with the provinces of Guangdong, Hubei, Chongqing and Tianjin. A national carbon trading system is coming in 2016 or 2017, the government has said. Meanwhile, a new Environmental Law went into effect in January 2015 and grants enhanced regulatory and enforcement powers to local agencies.

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

In June 2015, the State Council drafted its planned National Environmental Tax. Compared to stand-alone fines, taxes can be a more systematic, standardized, and potentially easier way to price in environmental externalities. Specifically, the new tax covers 14 "pollution control priority" industries, such as thermal power, iron and steel.

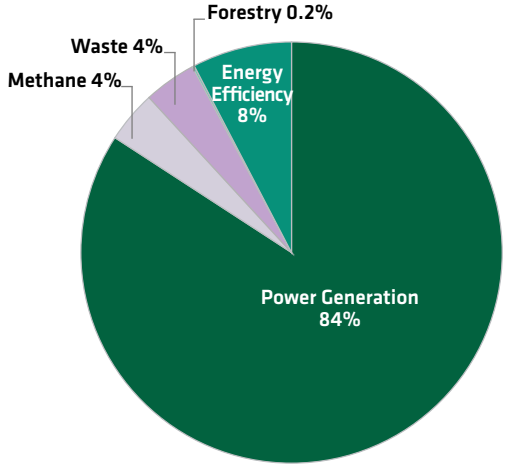
CLEAN ENERGY VALUE CHAINS BY SECTOR

Sector / Quantity	Available 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.

CARBON OFFSET PROJECTS BY SECTOR

4,109 CDM and voluntary carbon offset projects



Source: UNEP Risoe, Bloomberg New Energy Finance

CHINA – PERFORMANCE BY PROVINCE/REGION

In this year's *Climatescope*, China again ranked first among all 55 countries, thanks to its consistent policy support for zero-carbon energy, clean energy investment growth and the establishment of GHG ceilings in some provinces.

The 15 Chinese provinces evaluated by *Climatescope* scored significantly higher than in the previous year. In particular, Qinghai, Yunnan and Gansu scored higher than China overall based on their substantial improvements in local transmission infrastructures and policy incentives for clean energy deployments.

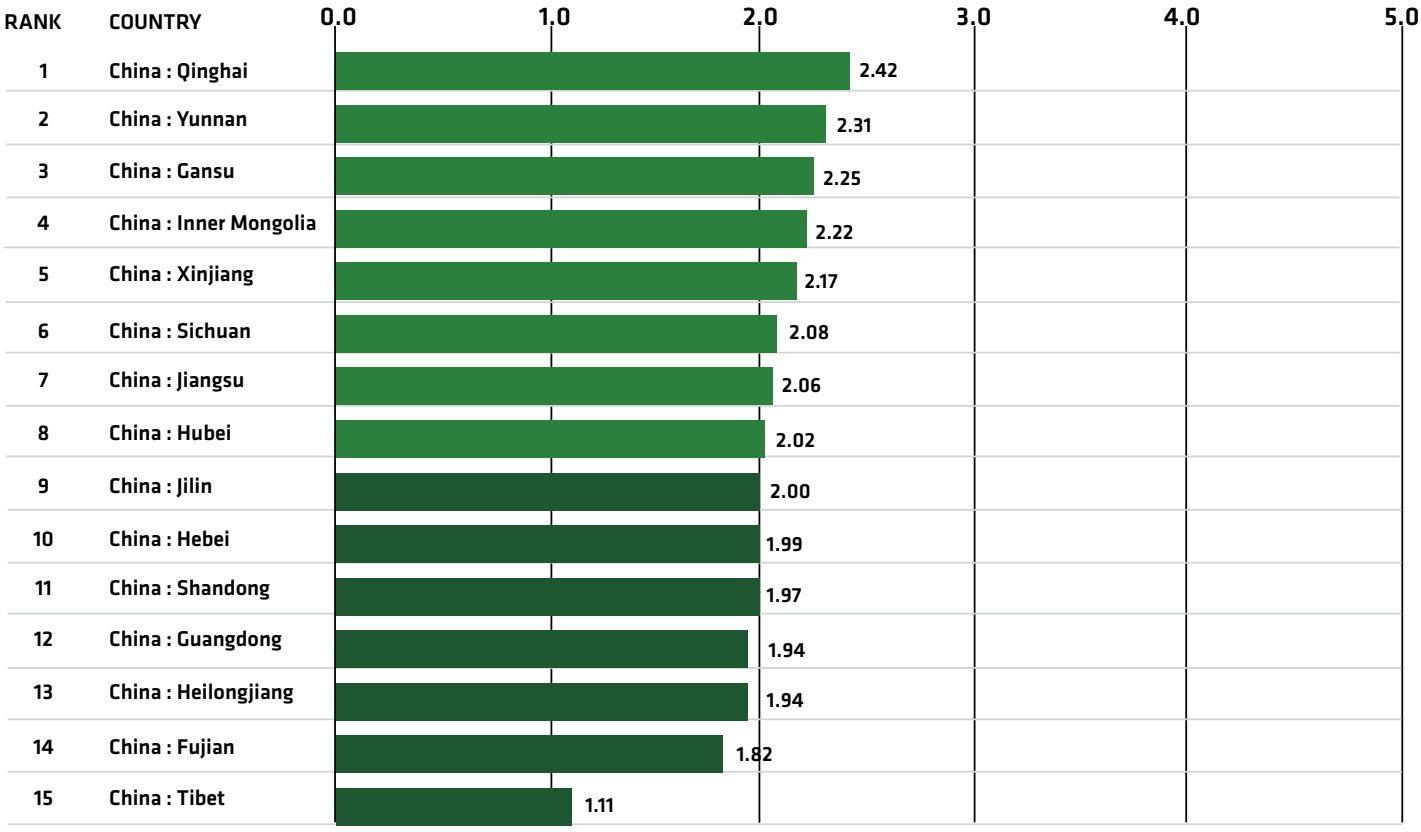
China's provincial profiles are diverse and fall into three cohorts: (1) The generation-resource rich west, (2) the east and south demand centers and (3) the demand-restraining provinces.

The country's resource-rich west includes Gansu, Xinjiang, West Inner Mongolia, Qinghai and Yunnan. All performed well on Parameters I and IV, based on their levels of clean energy investment and establishment of GHG emission targets. Newly built long-distance transmission systems, connecting these resource hubs with the manufacturing-heavy eastern and southern demand centers, boosted clean energy integration significantly in 2014.

The eastern and southern manufacturing-heavy provinces are Sichuan, Jiangsu, which surrounds Shanghai, and Hebei surrounding Beijing. Sichuan and Jiangsu performed well on the value chain and GHG emission targets indicators. Hebei, on the other hand, is a source of the air pollution plaguing Beijing and Tianjin, thanks to extensive coal burn. Those municipalities' strong power demand prevents Hebei from cutting fossil fuel usage to meet its 2015 GHG emission target, despite the local government's pledge.

The third cohort, demand-restraining provinces, includes Guangdong, Shandong, Fujian and Heilongjiang. They scored lower on all four parameters, in part because their power-demand growth slowed in 2014. As a result, new generation capacity additions were small compared to the other provinces evaluated.

2015 Global Climatescope scores
China provinces ranking



Fujian

GDP: **$363.7bn**

Five-year economic growth rate: **16.8%**

Population: **38.1m**

Total clean energy investment, 2009-2014: **$3.9bn**

Installed power capacity: **44.6GW**

Renewable share: **21.3%**

Total clean energy generation: **27.9TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
13	14	1.82

OVERVIEW

Located on China's southeast coast, Fujian had a GDP of $387bn in 2014, up 7.8% from 2013.

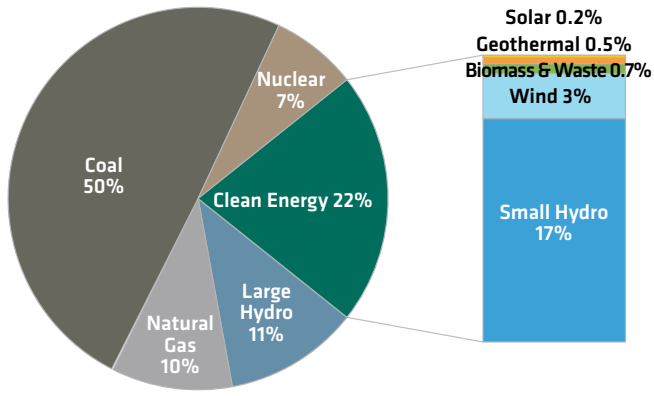
In March 2014, China's State Council announced plans to make Fujian a pilot "eco-province". Its main proposition: reduce Fujian's energy intensity to 20% below the overall national average. The Council also set an implementation goal of having non-fossil fuel consumption vs. primary energy consumption reach 6% higher than national average (11.4% stated in China's 12th Five-Year Plan for Energy Development) by year-end 2015.

By the end of 2014, Fujian's total installed power capacity was 44.5GW, with just under 40% or 17.6GW represented by non-thermal sources. Wind today represents just 2% of total generation at 3,800GWh in 2014 (up from 3,600GWh in 2013). Winds are decent in the province; Fujian's average annual wind farm capacity factor was 28.9%, more than 7% above the national average.

Fujian's provincial 12th Five-year Energy Development Plan sets targets for wind, biomass & waste, and solar PV at 2,500MW, 400MW and 100MW, respectively by the end of 2015. Fujian will have to build additional 1,000MW of wind, zero for biomass & waste and 20MW of solar PV in 2015 to achieve the targets and clean energy power generation vs. total power supply must reach 50.7

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

44.6GW total installed capacity

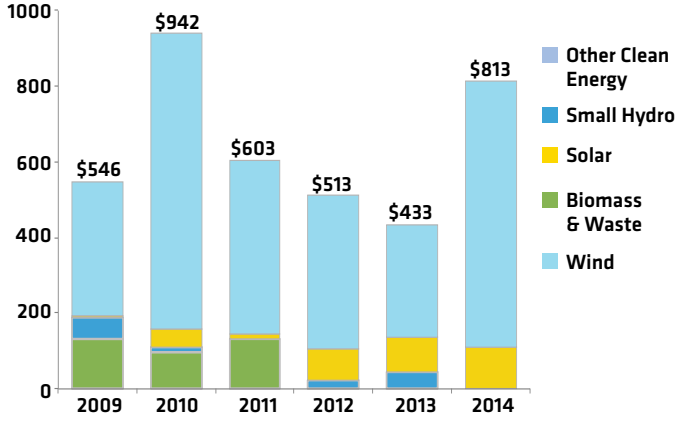


Source: Bloomberg New Energy Finance , National Energy Administration, Ministry of Water Resources, China Wind
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

Fujian's 12th Five-year Plan for Greenhouse Gas (GHG) Emission Management sets a target of cutting by 17.5% the CO2 intensity of Fujian's economy vs. a 2010 baseline by 2015. A provincial carbon trading market in Fujian is under preliminary work and is expected to be established in 2016. Fujian's carbon credit mechanism is also under preliminary discussion.

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

$3.9bn total cumulative investment



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

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

Gansu

GDP: **$103.4bn**
Five-year economic growth rate: **16.5%**
Population: **25.9m**
Total clean energy investment, 2009-2014: **$36.9bn**
Installed power capacity: **37.3GW**
Renewable share: **33.9%**
Total clean energy generation: **22.4TWh**
Top energy authority:
Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
2	3	2.25

OVERVIEW

Gansu is located in northwest China and in 2014 contributed a relatively modest 1% to the country's overall nominal GDP with $110.1bn, up from $103.6bn in 2013. However, the province plays a disproportionately large role in China's overall clean energy industry.

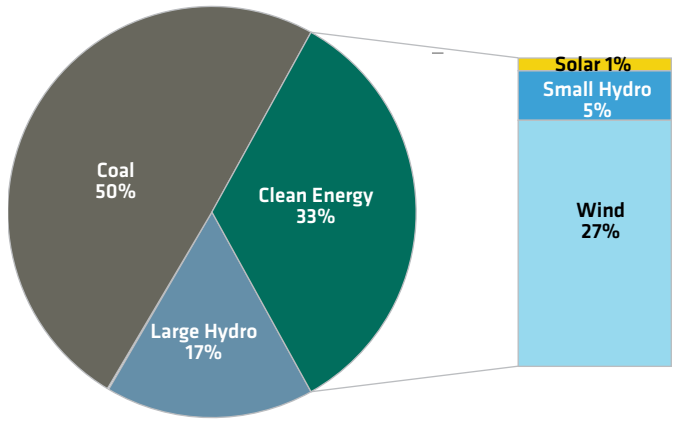
As of year-end 2014, Gansu had an installed power generating capacity of 41.9GW, of which 44.1% (18.5GW) was thermal, 24% (10.1GW) wind, 19.4% (8.1GW) hydro, and 12.3% (5.2GW) solar PV. In 2014, 58.9% of the total 124.1TWh power generated in Gansu came from thermal sources. The balance was supplied by zero-carbon technologies, including large hydro, wind and solar.

To better align the zero-carbon technology industry development with overall local economic growth, the Gansu government released in 2011 the 12th Five-year Development Plan for New Energy and Renewable Industries. It sets installation targets of 17GW, 8GW and 5GW for wind, hydro and solar PV by year-end 2015. By 2014, Gansu had already achieved theses targets for hydro and solar PV, but not for wind.

Today, the main challenge for Gansu's clean energy development is improving utilization efficiency for its existing fleet of solar PV and wind projects. Gansu's wind curtailment rate was 15% in 2014, well above China's 8% national average. Steps are being taken to address this as an 800kV direct current ultra-high-voltage line starting from Gansu and ending in Hunan has been approved for construction.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

37.3GW total installed capacity

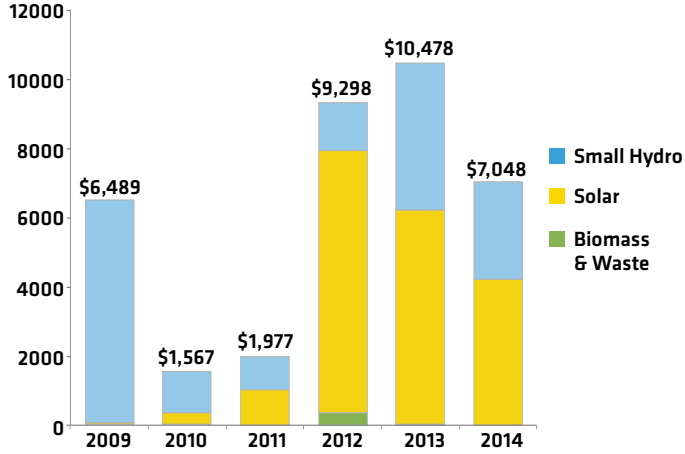


Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

A new National Plan to Tackle Climate Change in Gansu through 2020 was announced by the provincial government at the end of 2014 and aims to cut CO2 intensity of the provincial economy 42% against 2005 levels by 2020. For the power sector, a carbon emissions cap was set at 650g/kWh for large power plants.

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

$36.9bn total cumulative investment



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

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

Guangdong

GDP: **$1,026bn**

Five-year economic growth rate: **14.1%**

Population: **107.2m**

Total clean energy investment, 2009-2014: **$7.2bn**

Installed power capacity: **91.1GW**

Renewable share: **10.3%**

Total clean energy generation: **34.5TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
6	12	1.94

OVERVIEW

Located in the south of China, Guangdong has the largest nominal GDP of any of the country's provinces at $1,092bn.

As of year-end 2014, Guangdong had total installed power generation capacity of 90.8GW, of which 15.4GW (17%) was accounted for by renewables, inclusive of large hydro which represents the lion's share at 13.2GW. A total of 1.7GW of wind and 500MW of solar were also on line in 2014.

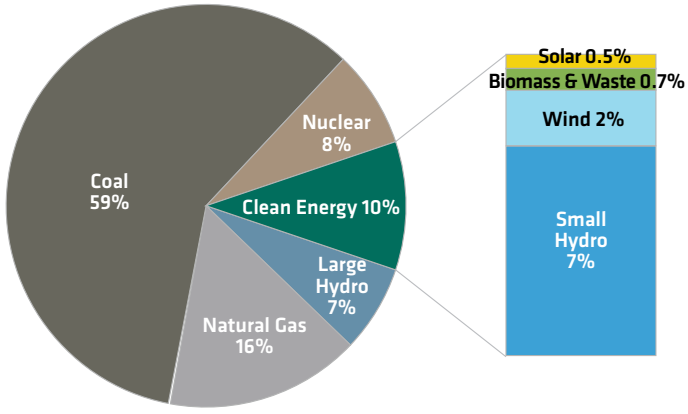
In generation terms, fossil sources dominate with 78.3% or 279.2TWh in 2014 coming from thermal power. The province relies heavily on imported coal (41m tons in 2014) and liquefied natural gas (1.8m tons) for electricity generation. Nuclear is Guangdong's second largest power source, accounting for 13.4%. Renewables are by comparison a small player, generating only 8.4% of the total in 2014. And of that generation, 96.6% came from hydropower.

Guangdong tends to be a weather vane for predicting China's larger energy policy trends, both in terms of power generation and transportation. Shenzhen, one of Guangdong's major cities, has attracted attention most recently after announcing plans for major power market reforms.

Guangdong has also launched pilot programs to promote electric vehicle use to support local manufacturing. The local government offers purchase tax exemptions for new energy vehicle sales. Guangdong's 12th Five-year Plan for Energy Development set an overall energy consumption cap. Non-fossil fuel's share of consumption was targeted to rise to 20% by 2015. Energy intensity was to be cut 18% compared with 2010 levels.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

91.1GW total installed capacity

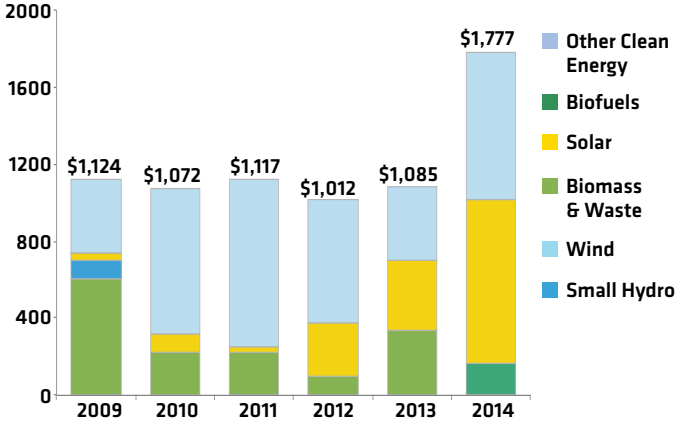


Source: Bloomberg New Energy Finance , National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

Guangdong's 12th Five-year Plan for Greenhouse Gas Emissions Management proposed improving by 19.5% carbon intensity by 2015 compared with 2010. The Shenzhen Emissions Exchange has as participants 635 local enterprises that have been allocated emission quotas, representing 38% of Shenzhen's overall CO2 emissions.

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

$7.2bn total cumulative investment



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

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

Hebei

GDP: **$445.5bn**
Five-year economic growth rate: **13.5%**
Population: **73.8m**
Total clean energy investment, 2009-2014: **$17.9bn**
Installed power capacity: **56.1GW**
Renewable share: **21.0%**
Total clean energy generation: **21.8TWh**
Top energy authority:
Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
8	10	1.99

OVERVIEW

Located in the north of China and adjacent to Beijing, Hebei in 2014 had a nominal GDP of $474bn, contributing about 4.3% to China's overall economy.

By year-end 2014, Hebei had total installed power generating capacity of 55.5GW with 77.1% (42.8GW) represented by thermal power. On a generation basis, thermal accounted for a larger share at 92.4% of the total with 238.2TWh produced in 2014.

Thanks to extensive coal burn, Hebei has been accused of being a major contributor to air pollution in neighboring Beijing and Tianjin municipalities. In response, the National Development and Reform Commission (NDRC) in September 2014 set a coal usage reduction target for Hebei by 2017.

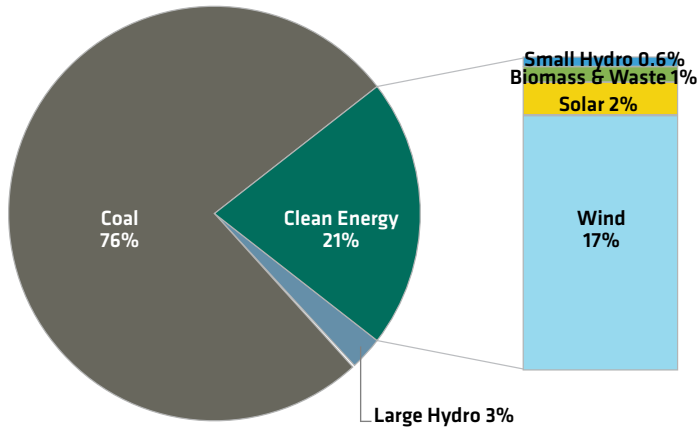
As of year-end 2014, Hebei had 9.6GW of installed wind, up 1.7GW from 2013. Wind generation totalled 16.4TWh in 2014, up 8.3% from the year prior.

Despite rapid wind growth over the past five years, wind penetration remains relatively negligible at 6.8% in Hebei, largely due to inefficient grid integration. Hebei's wind curtailment rate was 20% in 2014, well above the 8% national average. In response, the Hebei local grid corporation plans three new 500kV cross-province transmission lines to improve wind connectivity and power exports.

To promote solar PV expansion, the Hebei provincial government offers a benefit of CNY 0.1-0.3/kWh (USD 0.016-0.048/kWh) in addition to the national subsidy. Despite these supports, solar build-out to date has been limited by land constraints and complex approval procedures.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

56.1GW total installed capacity

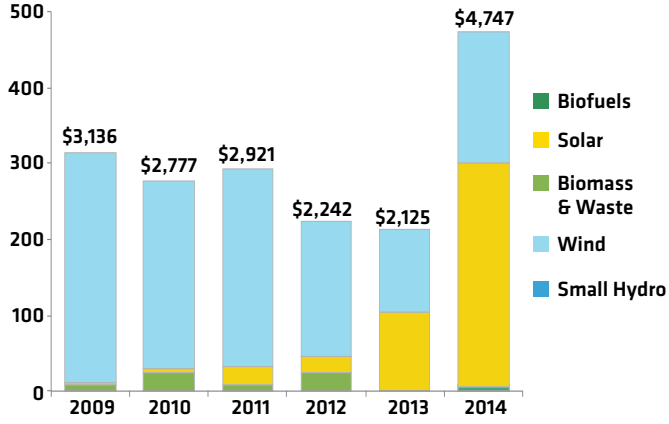


Source: Bloomberg New Energy Finance , National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

Hebei's 12th Five-Year Plan for Greenhouse Gas Emission Management was released in February 2014 and seeks to cut the province's carbon intensity 18% by the end of 2015 compared to 2011 levels. However, Hebei is not one of the seven emission trading pilots initiated by the NDRC.

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

$17.9bn total cumulative investment



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

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

Heilongjiang

GDP: **$227.4bn**

Five-year economic growth rate: **13.7%**

Population: **38.3m**

Total clean energy investment, 2009-2014: **$8.3bn**

Installed power capacity: **25.7GW**

Renewable share: **21.4%**

Total clean energy generation: **14.5TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
12	13	1.94

OVERVIEW

Located in the far northeast corner of China, Heilongjiang in 2014 had a nominal GDP of $242bn, up 2% from 2013.

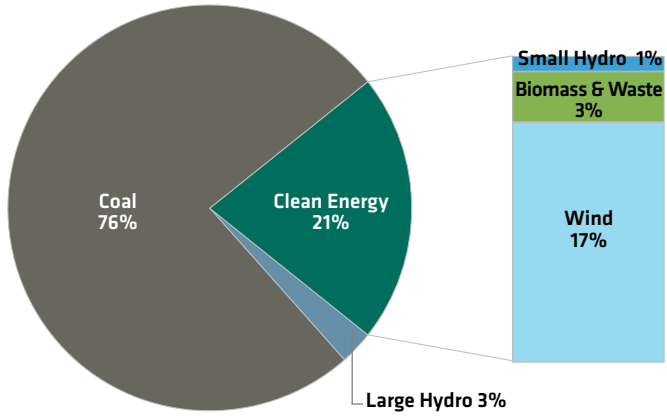
By year-end 2014, Heilongjiang had an installed power generation capacity of 24.8GW, of which 78.6% (19.5GW) was thermal, 17.4% (4GW) wind and 3.9% (1GW) hydro. Heilongjiang commissioned just one 20MW demonstration solar PV project in 2014 and has no major additional capacity in the project pipeline for 2015.

Heilongjiang has stated ambitious goals to rely more on zero-carbon of generation, but has largely failed to meet them thus far. In late 2010, the government released its Renewable Energy Industrial Development Plan for 2020. Targets included: boosting wind power's share of total local generation to 25% by 2015 and 30% by 2020; growing biomass power capacity to 480MW and 1.2GW by 2015 and 2020, respectively; and expanding solar PV capacity to 150MW and 500MW by 2015 and 2020, respectively. However, as of year-end 2014, wind accounted for just 2% of generation while biomass accounted for virtually no capacity.

Clean energy development should prove challenging in the province over the next five years. Already, the region has experienced bottlenecks related to its limited transmission network. In the winter, the pinch becomes tighter as the province's grid must reserve extra transmission capacity for combined heat and power coal-fired plants. The production of heat from those plants is considered critical to the province during the colder months.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

25.7GW total installed capacity

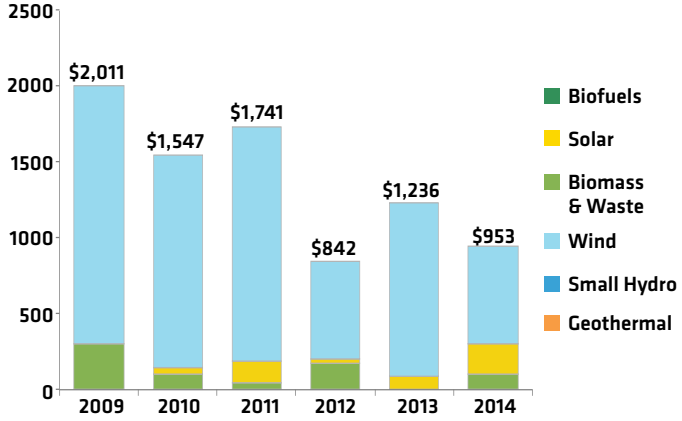


Source: Bloomberg New Energy Finance , National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for solar and oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

Despite falling short of its goals on clean energy to date, Heilongjiang has outlined other ambitions to rein in its CO2 emissions from both the power and industrial sectors. The local government has announced its goal to promote use of less energy-intensive machinery manufacturing for the 13th five-year period.

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

$8328.6m total cumulative investment



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

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

Hubei

GDP: **$414.5bn**
Five-year economic growth rate: **17.5%**
Population: **58.2m**
Total clean energy investment, 2009-2014: **$4.9bn**
Installed power capacity: **62.6GW**
Renewable share: **7%**
Total clean energy generation: **32.9TWh**
Top energy authority:
Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
14	8	2.02

OVERVIEW

Located in central China, Hubei in 2014 had a nominal GDP of $441bn in 2014, contributing about 4% to China's overall economy. Hubei is one China's most industrialized provinces and industrial activity in 2014 accounted for 47% of its local economy, 5% above the national average of 42%.

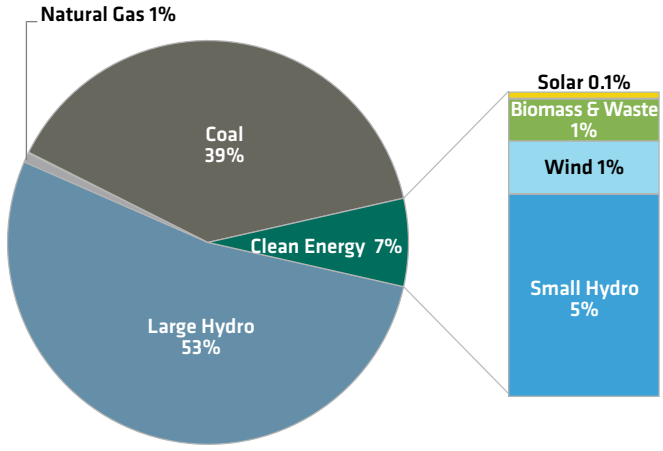
As of year-end 2014, Hubei had a total installed power generating capacity of 62.1 GW, of which 58.4% (36.3GW) was accounted for by hydro, 40.2% (25GW) thermal and 1.2% (770MW) wind. Hubei installed 90MW of PV in 2014 and has a healthy project pipeline with up to 500MW expected to be built in 2015. In terms of generation, thermal (mostly coal) and large hydro met over 99% of 2014 local power demand.

Given the Hubei government target of 1,300MW additional wind and 500MW solar PV by 2020, more aggressive incentives are expected soon. However, local natural resources are somewhat limited. Hubei's province-wide average annual wind speed of just 5m/second is the lowest among China's provinces (6m/second is typically needed to rotate a utility-scale turbine). To compensate, the local government provides a subsidy over that offered by the federal government. This benefit is set at roughly 10% the current national feed-in tariff to allow Hubei wind farms to earn the same as average Chinese projects.

The outlook for solar is somewhat brighter over the next five years, given relatively stronger local conditions and demand from industrial players.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

62.6GW total installed capacity

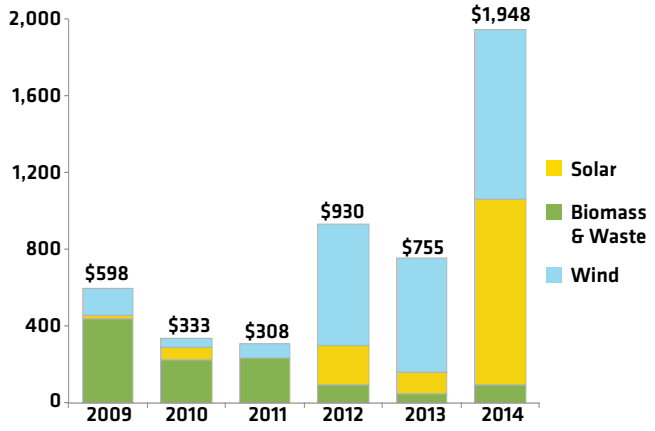


Source: Bloomberg New Energy Finance , National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

Hubei was one of seven provinces where carbon emissions trading pilots were initiated in China in 2013 by April 2014 had become the country's second-biggest carbon market. The Hubei government has stated its interest in in joining a national emission trading market planned for 2016-17.

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

$4.9bn total cumulative investment



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

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

Inner Mongolia

GDP: **$268.8bn**

Five-year economic growth rate: **14.6%**

Population: **25.1m**

Total clean energy investment, 2009-2014: **$39.2bn**

Installed power capacity: **92.4GW**

Renewable share: **25.8%**

Total clean energy generation: **41.4TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
4	4	2.22

OVERVIEW

Inner Mongolia (IMAR), located in the north, is China's third largest province spanning about 12% of the country's total land area. In 2014, its nominal GDP was $286bn, accounting for 2.6% of China's overall economy.

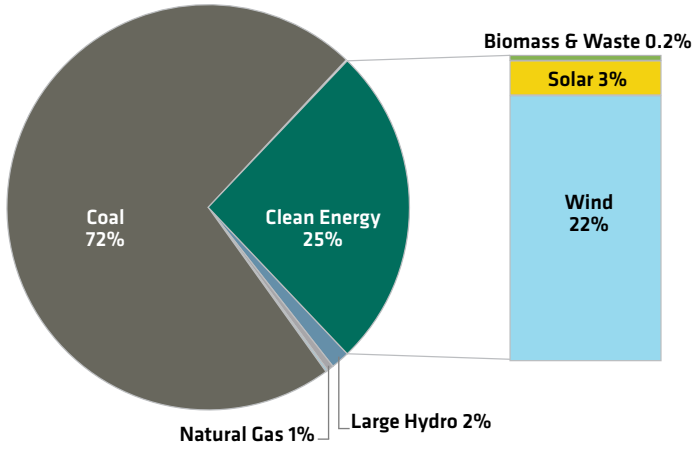
As of year-end 2014, IMAR had an aggregate installed power generating capacity of 92.1GW, of which 72.8% (67.1GW) was thermal (mainly coal), 22.5% (20.7GW) wind and 3.1% (2.9GW) solar. Wind power was the second largest power generation source, producing nearly 10% of the province's power.

IMAR has abundant winds and the wind capacity build-out has been very significant over the past decade. Development in IMAR benefits from the province's open spaces and inviting construction environment. This historically has meant typically shorter construction cycles compared to elsewhere in the country. By year-end 2014, IMAR was home to nearly as much wind generating capacity as in the entire United Kingdom.

Development hit a speed bump in 2011 after the National Energy Administration (NEA) delayed permits for further build in light of major grid congestion. Recognizing the problem, the NEA has permitted the build of a cross-province high voltage transmission network. The first 54GW of transmission capacity carried by the ultra-high-voltage-cables from the heart of IMAR wind bases to the load center of Beijing-Tianjin is due on line in the next few years. That change could soon result in wind power being exported in bulk to consumers outside of IMAR.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

92.4GW total installed capacity

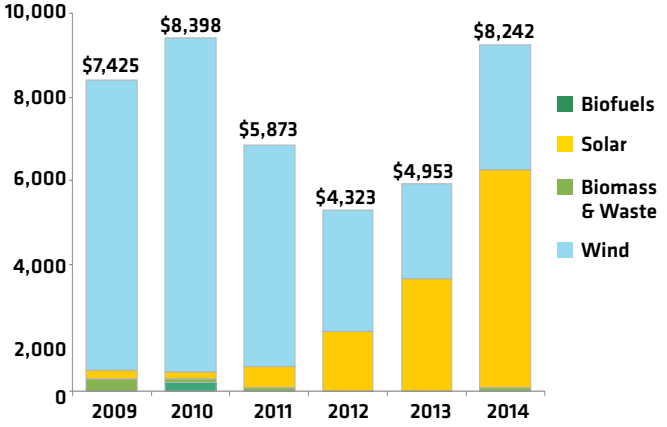


Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

IMAR's local 12th Five-Year Plan for Energy Conservation and Emission Reduction released in 2012 offers guidelines for greenhouse activities management. By 2015, IMAR's energy intensity contribution to China's overall economy is targeted to be cut by 15% compared to a 2010 baseline level.

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

$39214.0m total cumulative investment



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

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

Jiangsu

GDP: **$985.9bn**

Five-year economic growth rate: **15.6%**

Population: **79.6m**

Total clean energy investment, 2009-2014: **$14.9bn**

Installed power capacity: **87.1GW**

Renewable share: **7.8%**

Total clean energy generation: **13.0TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
5	7	2.06

OVERVIEW

Located on China's eastern seaboard, Jiangsu in 2014 had a nominal GDP of $1,049bn and is the country's second largest provincial economy contributing 10% to China's overall GDP.

As of year-end 2014, Jiangsu had an installed power generation capacity of 87GW, 80% of which was coal-fired. Clean energy (inclusive of large hydro) accounted for just under 8%. In terms of generation, coal-fired power dominated with nearly 85%, wind power accounted for 1.3% while solar power was less than a half percent.

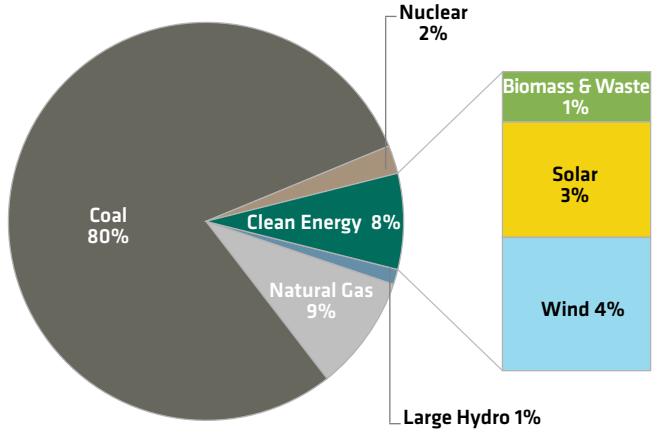
Due to strong coastal breezes, Jiangsu has been a focal point for offshore wind development in China. In September 2010, the province hosted the first round of national concession bids for off-shore project development. Total capacity won was 2GW and was divided into four projects located along the Jiangsu coastline.

Actual construction of these projects has been delayed since, however, mainly due to haggling between the developers who won in the auctions and the NEA over the delivery price of the electric-ity. Complicating matters, in June 2014, the NEA released a new nationwide offshore wind benchmark price that was 15% higher than the price at which the first Jiangsu projects bid back in 2010.

Despite these challenges, 516MW of offshore wind had been installed in Jiangsu as of year-end 2014 accounting for 70% of China's total offshore wind capacity. Jiangsu also has a healthy pipeline of future offshore wind projects totaling 1GW expected to be built in the next five years.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

87.1GW total installed capacity

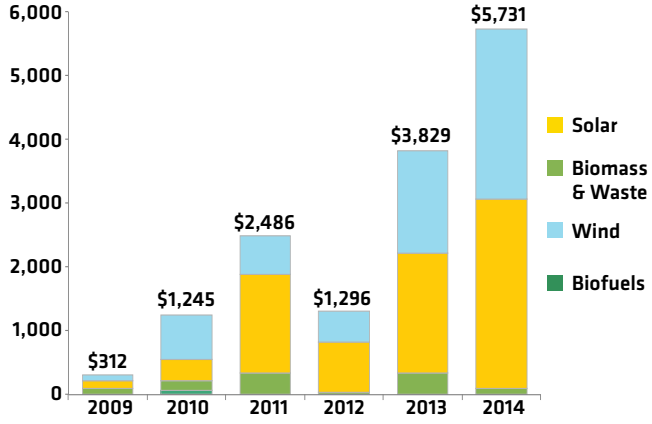


Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for small hydro and oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

Jiangsu has also built a robust solar PV supply chain over the past decade. The local government provides subsidies above the national solar PV feed-in tariffs launched in 2013 to promote local distributed PV projects.

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

$14898.3m total cumulative investment



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

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

Jilin

GDP: **$208.6bn**

Five-year economic growth rate: **15.8%**

Population: **27.5m**

Total clean energy investment, 2009-2014: **$7.0bn**

Installed power capacity: **25.9GW**

Renewable share: **19.1%**

Total clean energy generation: **10.3TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
11	9	2.00

OVERVIEW

Located in northeast China just below Heilongjiang, Jilin in 2014 had a nominal GDP of $222bn, up 3.7% from 2013.

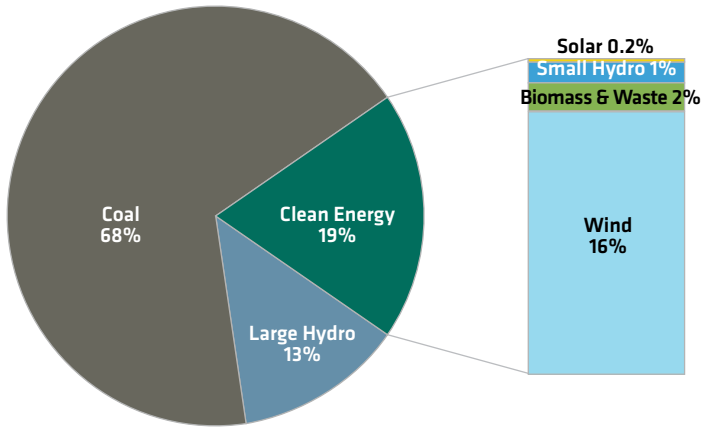
By year-end 2014, Jilin had an overall installed capacity of 25.6GW, of which 70% (17.7GW) was coal-fired power, 14% (3.8GW) was large hydro and the remaining 16% (4.1GW) was wind. In 2014, Jilin generated 83% of its total electricity supply from coal, out a total of 76TWh while large hydro and wind constituted 9.2% and 7.7% respectively.

In 2012, the Jilin government released its provincial 12th Five-year Plan for New Energy and Renewable Energy Development. It targeted to build 10.5GW wind, 200MW solar PV and 900MW biomass by the end of 2015. While Jilin does have reasonable local natural resources, the targets have proven challenging to meet due to a limited local supply chain and grid infrastructure.

No specific local renewable energy incentives been implemented in Jilin to date. However, in its 12th Five-year Plan for Greenhouse Gas Emission Management released in 2012, Jilin committed to reduce the CO2 intensity of its economy by 17% compared to 2010 levels. In addition, a provincial CO2 emissions trading system is under preliminary development in Jilin with an eye toward trading starting in 2016.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

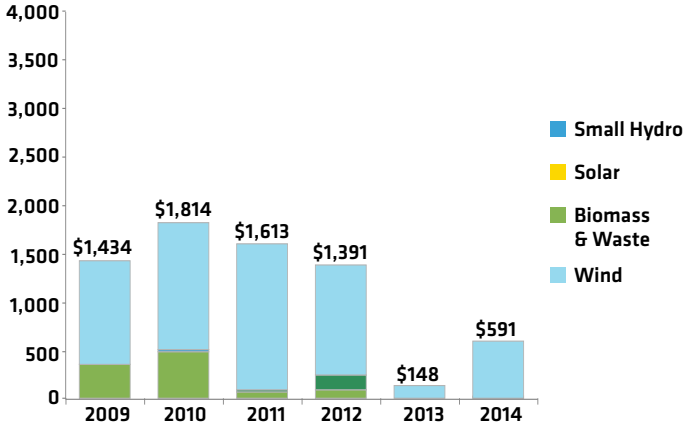
25.9GW total installed capacity



Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for small hydro and oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

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

$7.0bn total cumulative investment



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

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

Qinghai

GDP: **$34.8bn**

Five-year economic growth rate: **17.2%**

Population: **5.8m**

Total clean energy investment, 2009-2014: **$14.2bn**

Installed power capacity: **18.5GW**

Renewable share: **28.5%**

Total clean energy generation: **9.3TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
1	1	2.42

OVERVIEW

Located in northwest China, Qinghai in 2014 had a nominal GDP of $37bn and contributed a relatively modest 0.3% to the country's overall economy. However, as of year-end 2014, Qinghai had China's second largest base of installed solar PV capacity with 4.1GW, after only Gansu province.

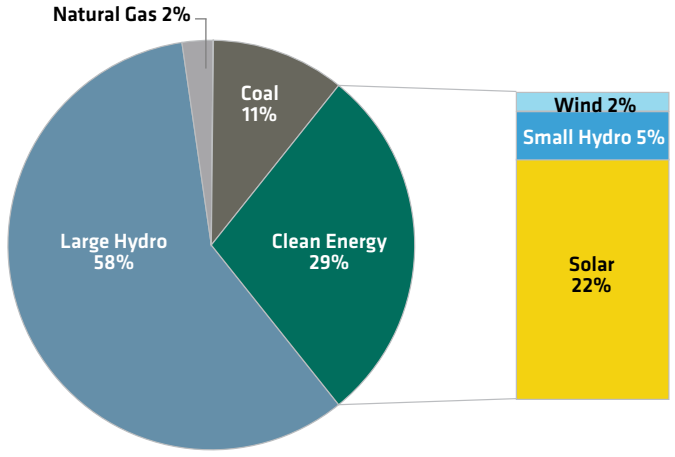
Compared with other coal-reliant provinces in China, Qinghai has a distinctively large proportion of clean energy. By the end of 2014, zero-carbon power generating capacity inclusive of large hydro contributed 87% to total installed capacity, while coal accounted for a mere 13%. In terms of actual generation, 68% of the total 60TWh power produced in Qinghai came from large hydro. The balance was supplied by other renewables (10.5%) and coal (21%).

Given Qinghai's abundant solar and land resource, the local solar PV industry has grown significantly during the past five years. Installed PV capacity has grown at an annual rate of 30% since 2010.

In 2012, the Qinghai government released its 12th Five-year Plan for New Energy Industrial Development and pledged to support clean power generation growth and the expansion of a local lithium-ion battery manufacturing base. In fact, Qinghai has experience deploying systems combining off-grid solar panels and lithium-ion batteries dating all the way back to the late 1970s. The main purpose of the new efforts was to improve electricity access in Qinghai's rural areas. The program was sponsored by the central government, but has recently been suspended as significantly improved grid infrastructure has made it less necessary.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

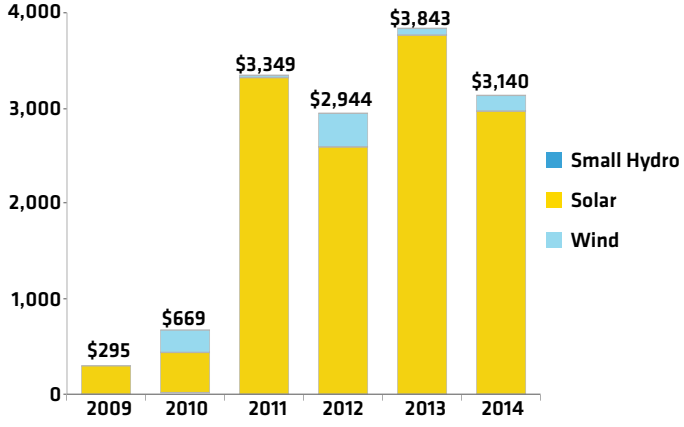
18.5GW total installed capacity



Source: Bloomberg New Energy Finance, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for biomass & waste and oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

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

$14.2bn total cumulative investment



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

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

Shandong

GDP: **$899.4bn**

Five-year economic growth rate: **14.3%**

Population: **97.9m**

Total clean energy investment, 2009-2014: **$15.6bn**

Installed power capacity: **80.9GW**

Renewable share: **9.7%**

Total clean energy generation: **15.8TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
9	11	1.97

OVERVIEW

Located on China's east coast, Shandong had a nominal GDP of $957bn in 2014, contributing about 9% to the overall economy. Shandong is one of the major industrial manufacturing hubs in China with a heavy reliance on coal-fired generation. However, in recent years the province has seen rapid growth in renewables thanks to a combination of surging electricity demand and growing government support.

By year-end 2014, Shandong had an installed capacity of 79.8GW, of which 90.2% (72GW) was coal. Wind and large hydro represented just under 8% with solar accounting for the rest at 400MW. In terms of actual generation, nearly all (97%) of Shandong's 373.8TWh came from burning coal. Zero-carbon power penetration has to date been very limited in the local energy mix.

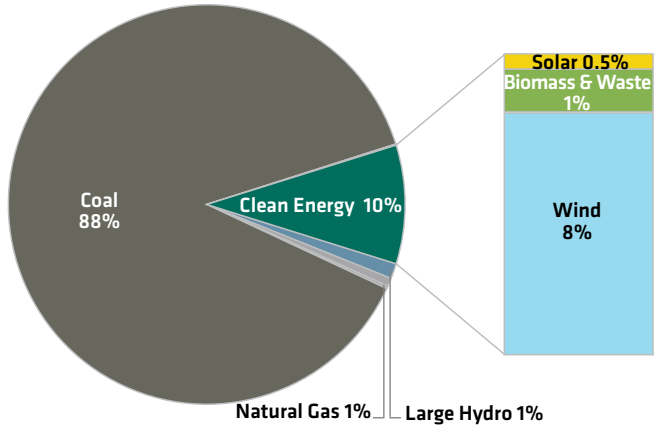
The provincial government has since 2010 offered a CNY0.06/kWh ($0.01/kWh) subsidy to wind-generated power on top of the national benchmark power price of CNY 0.61/kWh ($0.10/kWh). This premium has had its intended impact and wind capacity has grown sharply over the past five years.

More than 60% of Shandong's PV capacity is distributed and often small projects serve industrial consumer directly through bilateral power purchase agreements.

In 2011, the Shandong government released guidelines setting explicit goals of 600MW of utility-scale solar and 1.2GW of small-scale projects by 2015. Given that those targets that have yet to be achieved, Shandong is likely to see further growth in 2015.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

80.9GW total installed capacity

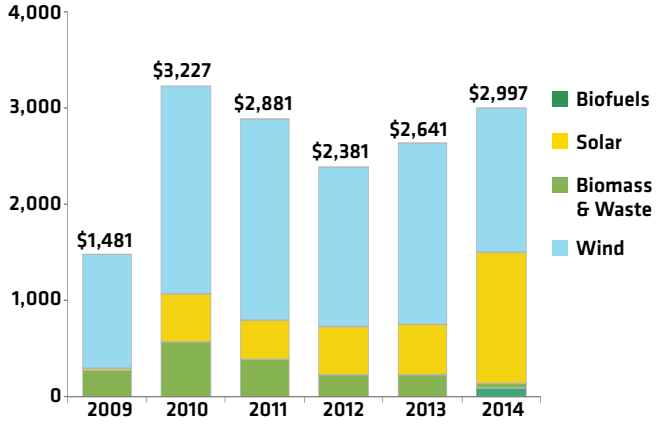


Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for small hydro and oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

To rein in local power sector CO2 emissions, the Shandong government in 2011 released its 12th Five-Year Plan for Energy Conservation. It set targets to cut CO2 intensity in the power sector to 0.85 tons of coal equivalent per kWh by 2015. That would mark 17% and 35% drops compared to 2010 and 2005 levels, respectively.

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

$15607.6m total cumulative investment



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

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

Sichuan

GDP: **$432.3bn**
Five-year economic growth rate: **16.9%**
Population: **81.4m**
Total clean energy investment, 2009-2014: **$3.5bn**
Installed power capacity: **80.6GW**
Renewable share: **15.5%**
Total clean energy generation: **51.4TWh**
Top energy authority:
Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
10	6	2.08

OVERVIEW

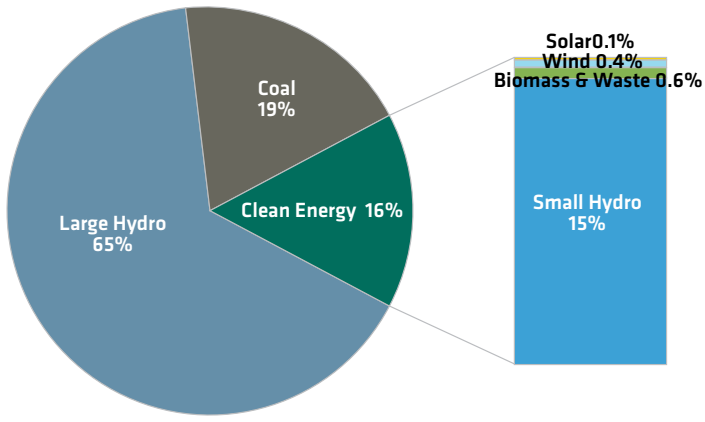
Sichuan in 2014 had a nominal GDP of $460bn, about 4% of China's overall economy. Between 50% and 60% of the electricity generated by Sichuan's power fleet is consumed by the local manufacturing industries that largely support the province's economic growth. The rest of Sichuan's power generation is consumed by residential and commercial customers or exported.

As of year-end 2014, Sichuan had a total installed power generation capacity of 78.8GW, of which 80% (63GW) was hydro and about 20% (15.5GW) was coal. Wind and solar PV capacity reached 290MW and 60MW in 2014, respectively. In 2014, 82% of the total 313TWh of electricity generated in Sichuan came from hydro. The balance was supplied mainly by coal. Sichuan exported about 30% of its generation to provinces where demand exceeds internal supply, among them Shanghai, Jiangsu and Zhejiang.

Unlike northern provinces with more open land, which have been targeted for aggressive wind and PV development in the next decade, Sichuan's renewables potential is more limited. The province does plan to add up to 2GW of nuclear power by 2030. At end-2014, Sichuan had zero nuclear power capacity. However, the siting of new nuclear power plants has proven to be challenging in Sichuan because of its history of catastrophic earthquakes.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

80.6GW total installed capacity

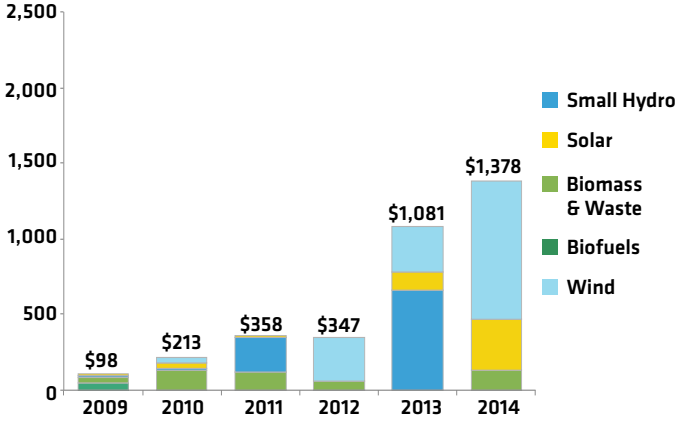


Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for oil & diesel and natural gas cannot be graphically represented due to scale, see source data for the complete numbers.

Sichuan has been reducing its coal usage and energy intensity. As of 2015, the total consumption of coal power is down by 8% from the 2010 level. The consumption of electricity form non-fossil fuels increased 6.5% during the same period.

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

$3.5bn total cumulative investment



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

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

Tibet

GDP: **$14.1bn**

Five-year economic growth rate: **18.6%**

Population: **3.2m**

Total clean energy investment, 2009-2014: **$1.3bn**

Installed power capacity: **1.5GW**

Renewable share: **26.8%**

Total clean energy generation: **746.2GWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
15	15	1.11

OVERVIEW

Tibet is located in the west of China, bordering the Indian subcontinent. Its 2014 nominal GDP was $14.8bn, with a very high growth rate of 11.2% from 2013. As part of a China Western Development Program, it benefits from a lower business income tax rate (15%) than other, further developed provinces (25%). Tibet has also piloted China's early rural electrification programs employing renewable energy since the 1980s.

As of year-end 2014, Tibet had an aggregate power installed capacity of only 1.4GW, of which 60.4% (879MW) was large hydro, 28.1% (400MW) coal, and 9% (130MW) solar. By comparison, Tibet's wind capacity totals just 10MW. In 2014, Tibet generated 76.3% of its 2.5TWh electricity from hydro thanks to its abundant local resources.

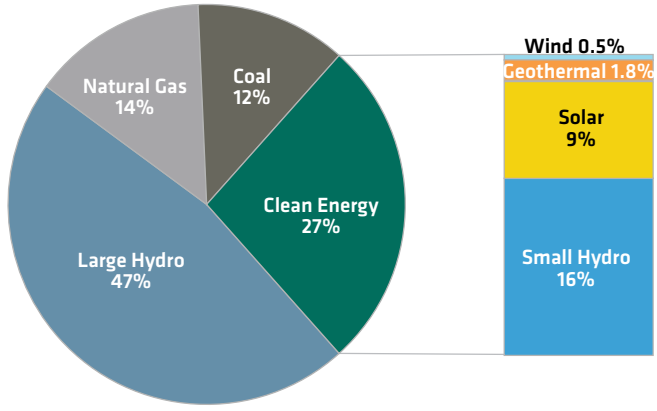
Tibet has the best solar resources in China, according to Energy Institute of Tibet. A typical PV plant in Tibet can produce power 1,800 hours per year – 432 hours above the national average. To exploit this natural resource, since 2012 Tibetan PV projects have been offered higher feed-in tariffs of CNY 1.0/KWh ($0.16/KWh) than projects in other provinces. However, limited grid infrastructure has hindered a serious spurt in large-scale PV project development.

Tibet's government intends to see 2.6GW of hydro installed by 2015 and over 100GW added by 2025 for both domestic consumption and cross-provincial power trades. To accommodate power from hydro plants outside of Tibet, the local grid company seeks to build six extra-high voltage transmission lines. Bundled with hydro power, wind and solar would be able to serve the power demands in central and southern China through those lines.

Tibet's 12th Five-year Plan aims for cumulative installed solar PV capacity to reach 160MW by 2015, suggesting a goal of 100MW new build in 2015.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

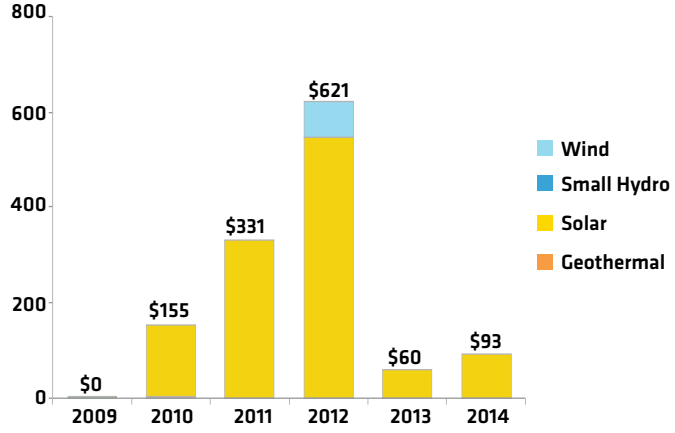
1.5GW total installed capacity



Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook

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

$11259.2m total cumulative investment



Source: Bloomberg New Energy Finance

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

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

Xinjiang

GDP: **$140.0bn**

Five-year economic growth rate: **17.2%**

Population: **23.0m**

Total clean energy investment, 2009-2014: **$27.3bn**

Installed power capacity: **49.8GW**

Renewable share: **26.8%**

Total clean energy generation: **22.2TWh**

Top energy authority:

Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
3	5	2.17

OVERVIEW

Xinjiang in 2014 contributed $150bn, or 1.3%, to the country's overall nominal GDP, up 8% from 2013. Xinjiang's coal and oil reserves are 40% and 30%, respectively, of the country's total.

In 2014, 81% of the total 177.3TWh of power generated in Xinjiang came from coal. The balance was supplied by zero-carbon technologies, mainly wind power.

Thanks to its abundant fossil fuel resources, Xinjiang has become a backbone of fuel supply for China's economic growth. Since 2010, China's central government has planned to build a long-distance transmission network to export electricity generated within Xinjiang to the far east of the country.

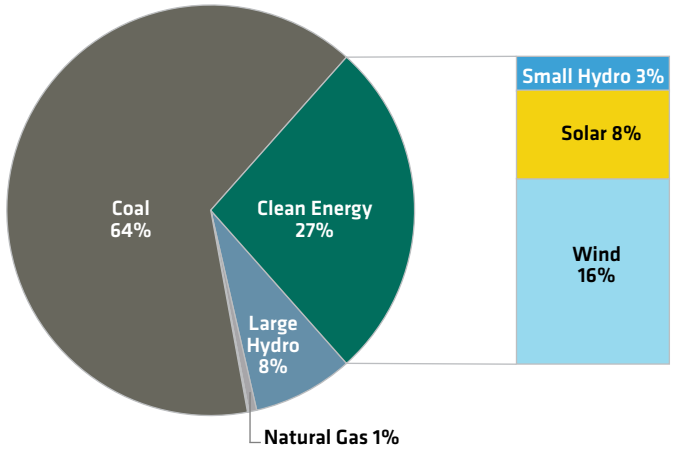
In early 2015, the National Energy Administration approved 5GW of onshore wind projects on top of 3GW already planned for Xinjiang for the next five years. Also approved was 1.8GW of utility scale solar PV.

In December 2012, Xinjiang's government released its 12th five-year plan for GHG emission action. The plan sets a target to reduce carbon intensity in the Xinjiang economy 15% by 2015, compared with the 2010 level. To achieve this goal, the local administrator has been focusing on establishing a carbon auditing system, implementing caps on public building energy consumption and promoting new energy vehicles and LED applications.

In addition, the plan requires that enterprises picked by the Xinjiang government are to submit their annual energy consumption and GHG emission data directly to the local energy administration department and statistical bureau. While it is too soon to report the province's progress on its 2015 goals, the GHG action plan is pushing Xinjiang toward significant carbon-emissions improvements.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

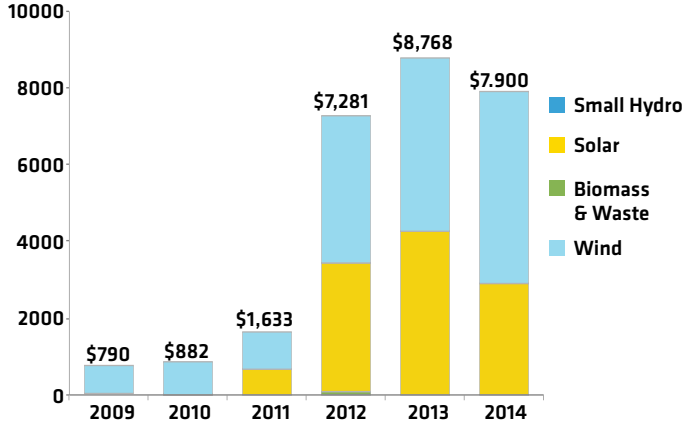
49.8GW total installed capacity



Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for biomass & waste and oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

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

$27.3bn total cumulative investment



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

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

Yunnan

GDP: **$193.6bn**
Five-year economic growth rate: **18.1%**
Population: **47.0m**
Total clean energy investment, 2009-2014: **$10.9bn**
Installed power capacity: **69.3GW**
Renewable share: **24.2%**
Total clean energy generation: **55.2TWh**
Top energy authority:
Provincial Development and Reform Commission

CHINA RANKING		OVERALL SCORE
2014	2015	2015
7	2	2.31

OVERVIEW

Yunnan, in southern China, is less industrialized than other Chinese provinces covered in Climatescope but has the country's second-largest hydro power fleet. Hydro has been one of Yunnan's economic pillars for decades, allowing it to sell electricity to neighboring provinces. The surplus of hydro power also has been a major impediment to wind and solar penetration despite incentives for those technologies.

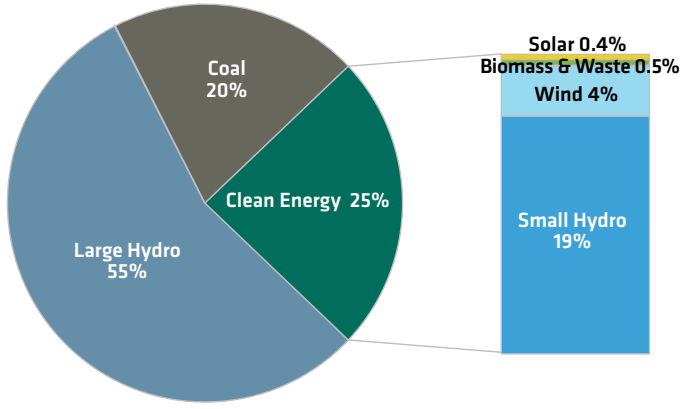
In 2014, 35% of Yunnan's hydro power (62TWh) was sold to Guangdong, an industrialized demand center. That means more than 11% of Guangdong's 2014 total power consumption was met with Yunnan generation. We expect this energy transfer will remain and expand between the two provinces despite Guangdong's efforts at local generation development. The main reasons are: 1) additional interprovincial transmission networks started operations in 2014 and 2) a lower retail price established in early 2015 by the National Development and Reform Commission.

New transmission lines installed in 2014 from the west of Yunnan to central Guangdong doubled the existing capacity and lifted power exports from Yunnan to Guangdong by 15% from 2013.

As a result of price cuts ordered by the National Development and Reform Commission, Guangdong's industrial and commercial users are paying CNY 0.45/kWh for hydroelectricity from Yunnan. That is CNY 0.01/kWh lower than the price of power imported from Sichuan and CNY 0.22/kWh lower than Guangdong's benchmark retail price.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

69.3GW total installed capacity



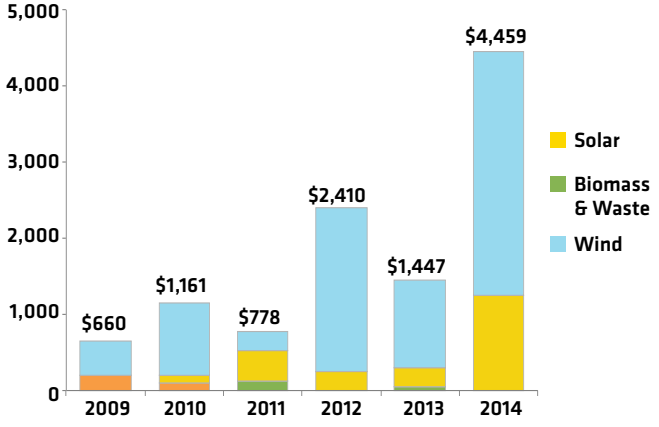
Source: Bloomberg New Energy Finance, National Energy Administration, Ministry of Water Resources, China Wind Energy Association, China Electric Power Yearbook
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

Wind power's decline is directly price-driven. The tariff for in-province wind power, CNY 0.34/kWh, is more expensive than the on-grid price for in-province hydro.

To promote electric vehicles, the Yunnan government in 2012 set a target of increasing new energy vehicles in Kunming, the provincial capital, to 3,400 units by 2015 from just 123 at the end of 2014.

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

$10.9bn total cumulative investment

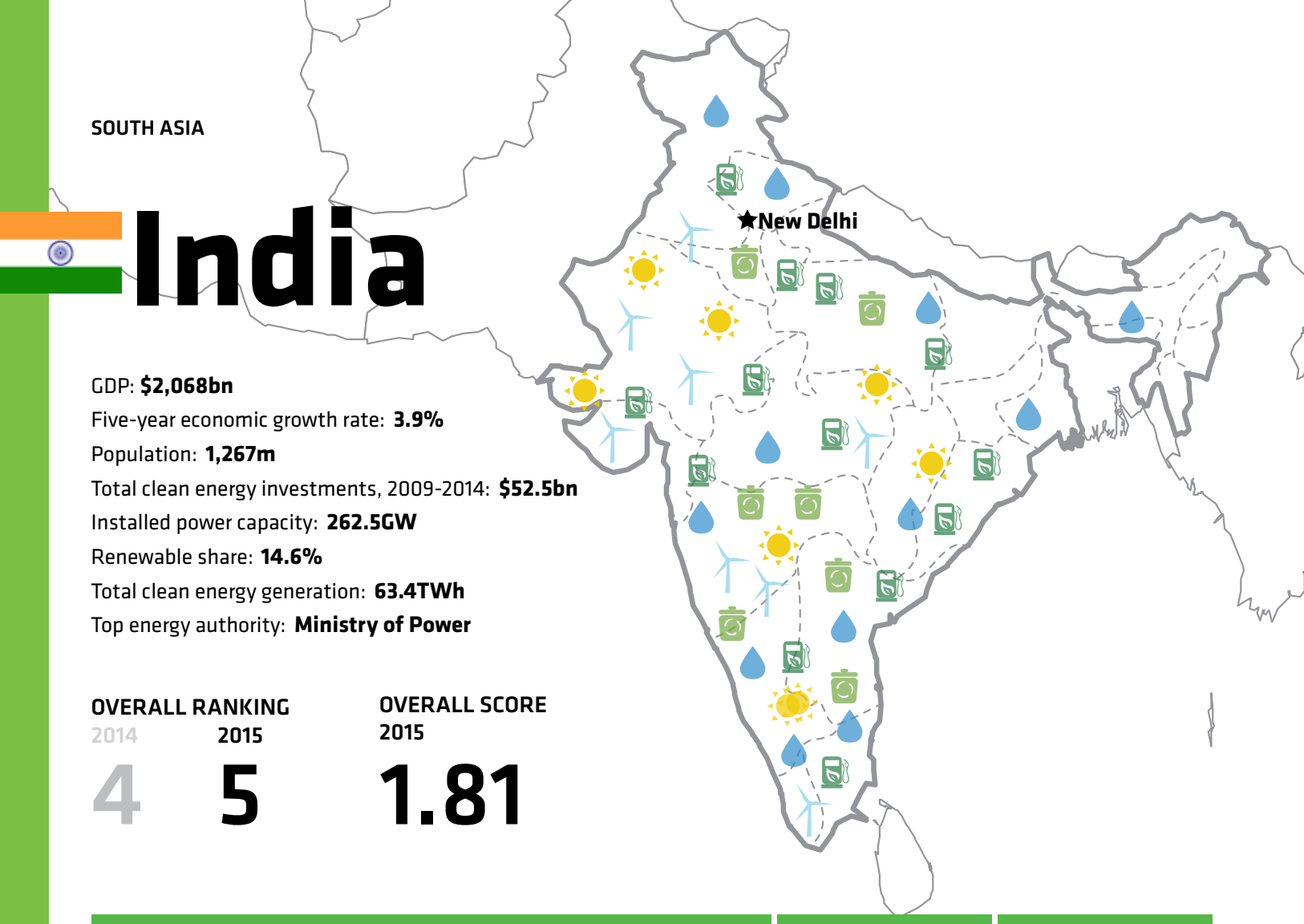


Source: Bloomberg New Energy Finance
Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

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

SOUTH ASIA

India



GDP: **$2,068bn**
Five-year economic growth rate: **3.9%**
Population: **1,267m**
Total clean energy investments, 2009-2014: **$52.5bn**
Installed power capacity: **262.5GW**
Renewable share: **14.6%**
Total clean energy generation: **63.4TWh**
Top energy authority: **Ministry of Power**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
4	5	1.81

PARAMETER	RANKING	SCORE
I. Enabling Framework	11	1.51
II. Clean Energy Investment & Climate Financing	19	0.66
III. Low-Carbon Business & Clean Energy Value Chains	05	4.10
IV. Greenhouse Gas Management Activities	08	2.60

SCORE SUMMARY

India scored 1.81 in *Climatescope* 2015, placing it 5th on the list of countries overall. The country's ranking fell one place on the list from 2014, largely due to decline of its score on Clean Energy Investment Parameter II in general and on Green Micro Finance Indicator, in particular.

On Enabling Framework Parameter I, India scored 1.51 thanks to a particularly good performance on Growth Rate of Power Demand Indicator. In fact, it had the second highest score on Parameter I among all nations in APAC.

On Clean Energy Investment and Climate Financing Parameter II, the country scored 0.66, down from 0.85 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the country repeated its 2014 score of 4.10 (ranking fifth in both years globally) thanks to a well-developed value chain.

On Greenhouse Gas Management Activities Parameter IV, India scored 2.60, down from its 2.68 in 2014, because of a decline in its GHG Country Registry Indicator score.

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

OVERVIEW

India had 258GW of total power capacity at the end of 2014 of which renewables represented 34GW (13%). Overall, coal represented the largest share with 60%, followed by large hydro at 16%.

2014 was a watershed year for Indian politics and the implications for energy policy could be felt for years, perhaps even decades to come. Elections concluded in May handed Narendra Modi and his BJP a decisive victory and a mandate to form a new federal government.

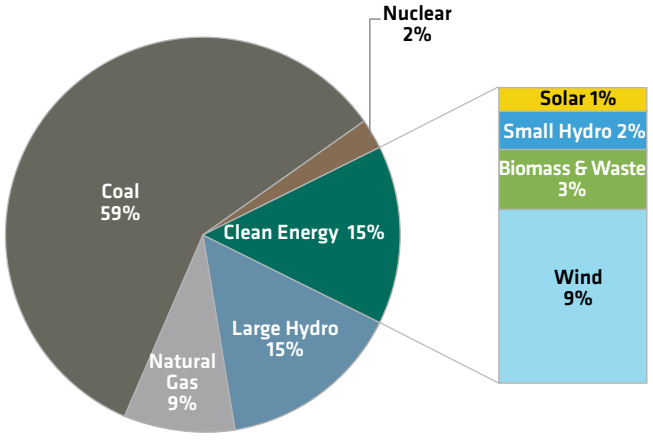
Modi has outlined broad ambitions to provide around-the-clock power and to expand electricity access to all 1.25bn Indians by 2019. This, in turn, has prompted major energy policy reform. Step one was a move to put ministries overseeing the coal, power and new and renewable energy sectors under a single minister. This has improved coordination between ministries and speeded decision making. It has also strengthened the presence of Ministry of New and Renewable Energy and brought it to the forefront.

Renewables represent an important part of the government's energy security ambitions while at the same time helping to address India's rapidly rising CO2 emissions. Distributed renewables, typically in the form of photovoltaics, also have the potential to electrify India's remote villages without the need of extending the grid.

Hence the government has set highly ambitious goals for adding renewable capacity. The country's previous target of adding 20GW solar by 2022 has been upped to 100GW while a new target for wind has been set at 60GW under the same time frame. Including 10GW of biomass and 5GW of small hydro, the overall aim is to add 175GW of renewable energy capacity by 2022.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

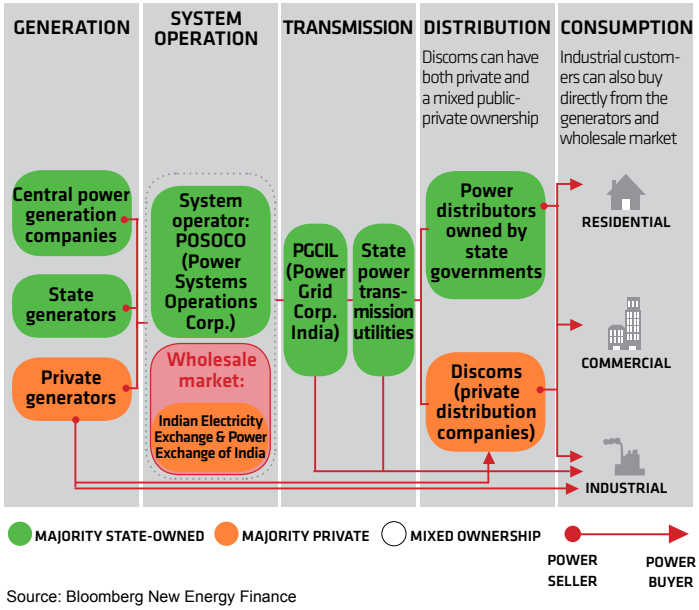
262.5GW total installed capacity



Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy
Note: Negligible values for oil & diesel and other fossil fuels cannot be graphically represented due to scale, see source data for the complete numbers.

POWER SECTOR STRUCTURE

Regulator: Central Electricity Regulatory Comission and State Regulatory Commissions



Source: Bloomberg New Energy Finance

KEY POLICIES

Auctions	The National Solar Mission is targeting development of 100GW of solar power by 2022. The federal government and various states are conducting several auctions to permit the necessary capacity.
Biofuel Blending Mandate	There is an overarching national target to achieve 20% biofuel content for both petrol and diesel by 2017. In January 2013, a directive was issued mandating the blending of 5% ethanol with petrol by 30 June 2013.
Debt-Equity Incentives	Various grants and capital subsidies have been made by central government to develop small-scale biogas, biomass & waste-based systems, solar lighting and rural electrification.
Energy Targets	India has set an overarching target of 175GW of renewable energy by 2022. this includes 100GW of solar, 60GW of wind, 10GW of biomass and 5GW of small hydro. The states also have their own targets and renewable purchase obligations.
Feed-in-Tariffs	State-level electricity regulations mandate FiTs that are applicable for a set period of time, for each energy source.
Net Metering	As many as 15 states in India have net-metering policies while others are developing them. The policies vary among states and in some cases offer additional incentives or feed-in tariffs.
Tax Incentives	Announced in as early as 1962, the accelerated depreciation now allows renewable energy developers to claim 80% depreciation resulting into deferment of taxes and interest cost savings. Clean energy projects are also eligible for 10year income tax holidays.

Source: Bloomberg New Energy Finance Policy Library

To fuel these targets, the government has quadrupled the clean-energy taxes on coal to INR 200/tonne from INR 50/tonne under the previous government. Revenues from this are pooled into a National Clean Energy Fund intended to finance most national level clean energy subsidies and support programs. Subsidies include capital grants for rooftop and small solar applications or creation of a payment security fund to cover payment defaults for utility scale projects.

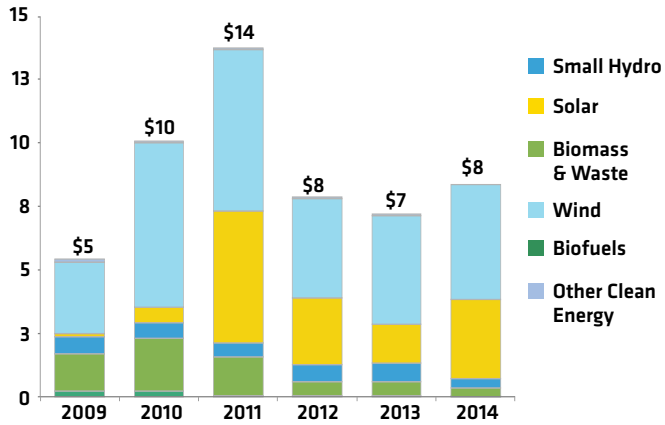
It has been estimated that thanks to strong sun, India has the potential to host no less than 749GW of solar power generating capacity. As of the end of 2014, however, the country had just 3GW installed. The 100GW solar by 2022 target outlined by the Modi government suggests 12GW of new build will be needed per year.

While the target is national, achieving it will rely to a large degree on the efforts of states who formulate their own solar targets and incentive policies. Most have taken an auction-based approach under which private developers bid to sell power to state distribution companies at the lowest possible rates. Rules of these tenders vary by state but usually 25-year fixed rate power purchase agreements (PPAs) are available. A few states have opted for feed-in tariffs over auctions to award solar contracts.

At the federal level, the National Solar Mission program runs parallel to state efforts and also offers reverse auctions and subsidies. By the end of 2014, 1.9GW capacity had been permitted under the Solar Mission with a target to add a further 17GW by 2019.

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

$52bn total cumulative investment



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

LEAGUE TABLE

2014 Total Investments	$8,346m

Top Three Lead Debt Arrangers 2014 ($m)

1st	State Bank of India	$101m
2nd	WB Group	$75m
3rd	Yes Bank Ltd	$75m

Top Three Equity Sponsors 2014 ($m)

1st	Oil India Ltd	$71m
2nd	HydroChina Xibei Engineering Co	$65m
3rd	Dawood Power Ltd	$65m

Top Three Asset Finance Deals, 2014 ($m)

Rank	Sector	Project	Developer	Value
1st		Welspun Neemuch PV Plant Refinancing	Welspun Ltd	$563m
2nd		ReNew Bhesada Wind Farm	ReNew Power Ltd	$287m
3rd		Continuum Madhya Pradesh Wind Farm	Continuum Wind Energy Group	$238m

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

The federal government is currently considering different approaches to reduce risks perceived associated with these long-term PPAs and their bankability. These include bundling of solar power with cheaper coal to make its price market attractive, offering upfront Viability Gap Funding capital grants or creating a payment security fund to cover defaults. The states are also developing solar parks with the help of the federal government. These parks offer clear land with all necessary infrastructure that can significantly reduce many challenges such as land acquisition or road connectivity.

Of the 100GW solar target, 40GW has been earmarked for rooftop solar. While the federal government offers capital subsidies for these projects, approximately 14 states offer net-metering policies that allow system owners to receive the benefit of the excess power they generate back into the grid. Approximately five states provide feed-in tariffs for rooftop projects or offer additional grants to the national subsidies.

Wind has traditionally been the flagship sector in India's renewable energy basket with 22GW installed as of the end of 2014. The sector has seen solid growth in the last several years with allowable accelerated depreciation having served as a key tax incentive for developers. This incentive allows the investors to defer tax liabilities by claiming 80% of the residual value of the project as depreciation. After it was withdrawn in 2012, new installations dropped dramatically in 2013. The new government restored the incentive in H2 2014 leading to a rebound and 2.3GW of new build in the year.

In 2015, some states are poised to raise wind feed-in tariffs offered for new projects and this is likely to boost installations. However the 60GW by 2022 target outlined by the Modi government remains ambitious. A National Wind Mission is currently in the works and is intended to accelerate progress toward the long-term goal.

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

Regarding the smaller clean energy sectors of biomass and small hydro, a variety of federal programs are either in place or in the works. Biomass and bagasse-based cogeneration are the main sources of bio power in the country. Growth in this sector depends on the availability of fuel and its supply chain; hence this sector is concentrated around agricultural locations.

India today classifies projects less than 25MW as small hydro. The federal government is currently working on a National Small Hydro Mission to accelerate growth in this sector.

Finally, India has an ongoing National Mission on Enhanced Energy Efficiency that focuses on various initiatives such as demand side energy management including labelling of appliances based on their efficiency. This has also led to the implementation of an innovative industrial energy efficiency initiative that will result into trading of so-called energy saving certificates.

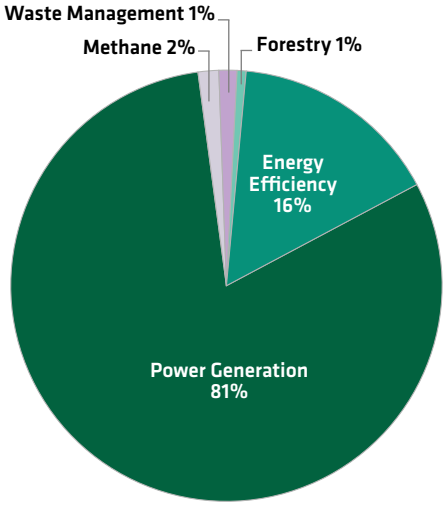
CLEAN ENERGY VALUE CHAINS BY SECTOR

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.

CARBON OFFSET PROJECTS BY SECTOR

2,069 CDM and voluntary carbon offset projects



Source: UNEP Risoe, Bloomberg New Energy Finance

INDIA – PERFORMANCE BY STATE

The *Climatescope* assessment includes 10 Indian states where there has been significant clean energy activity. The 2015 edition features a reshuffling of the highest-ranked Indian states.

Tamil Nadu took the top ranking in 2015, displacing last year's leader, Karnataka, to second position. Madhya Pradesh climbed five places to third this year, thanks to its policies favoring wind, biomass and solar installations.

Uttar Pradesh climbed three places, from 10th to seventh rank.

In Madhya Pradesh and Uttar Pradesh, the overall installed clean energy capacity base is still low; their scoring gains came on a relative surge in new projects, investments and allocations.

Other states that lost rank this year are Rajasthan, Gujarat, Andhra Pradesh and Punjab; each of which fell by two places.

Independent of rankings, the numerical scores of all states except Karnataka increased from 2014 to 2015.

Tamil Nadu's overall first-place ranking is attributable to its top score on clean energy installed capacity and its well-developed value chain. While its rate of new installations has declined, Tamil Nadu boasts a mature wind sector and has the most installed wind capacity in the country.

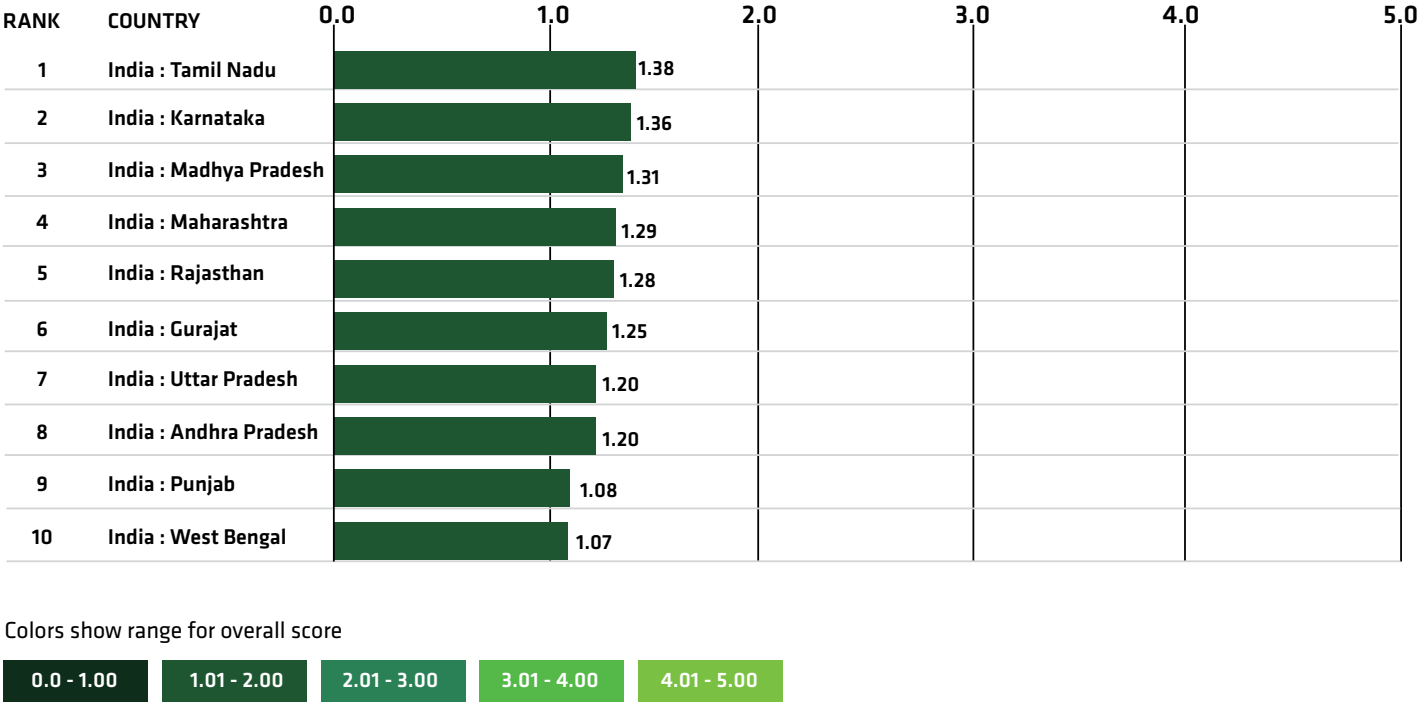
Karnataka had high scores on power sector structure, carbon offsets historical activity and value chains.

Madhya Pradesh scored the highest among Indian states on growth rate of clean energy investments. It also had the second highest score on growth rate of installed capacity and growth rate of electricity generation.

Uttar Pradesh scored highest on the growth rate of electricity generation indicator. It also had the second highest score on growth rate of clean energy investments.

Maharashtra delivered the highest indicator score on growth rate of power demand and scored in the upper reaches on clean energy value chain indicators.

2015 Global Climatescope scores
India states ranking



Colors show range for overall score

0.0 - 1.00 | 1.01 - 2.00 | 2.01 - 3.00 | 3.01 - 4.00 | 4.01 - 5.00

Andhra Pradesh

GDP: **$168.2bn**

Five-year economic growth rate: **4.1%**

Population: **88.5m**

Total clean energy investment, 2009-2014: **$2.1bn**

Installed power capacity: **20.6GW**

Renewable share: **10.0%**

Total clean energy generation: **3.4TWh**

Top energy authority:

Energy Department, Government of Andhra Pradesh

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
6	8	1.20

OVERVIEW

In 2014, the state of Andhra Pradesh was bifurcated to carve out the new state of Telangana. For Climatescope 2015, we have assessed both states as one – Andhra Pradesh – for uniform comparison with the previous year.

Of the total 20GW power-generating capacity on line in the state, 11GW is represented by coal. Renewables account for just 10% (2GW), mostly in the form of wind and biomass. The state's wind potential is far from tapped. With just 912MW commissioned today, there is substantial room for new projects.

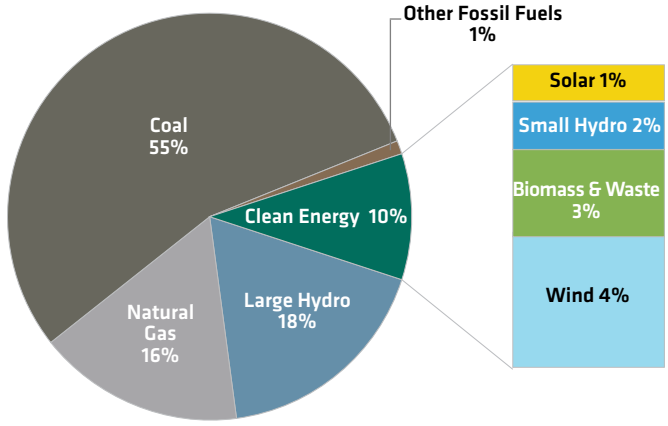
New state and political uncertainties are creating new challenges to project development, however. Some wind farms in Andhra Pradesh have existing power purchase agreements signed with firms located in what is now Telangana and are facing hiccups as charges for wheeling power across the state line have not fully been determined. In an attempt to at least partially compensate for this, the states have raised the limit of accelerated depreciation claims allowed by 15% which results in a larger tax benefits for developers.

After the bifurcation, both new states have set very ambitious plans for adding solar capacity to address an existing power deficit. Combined, Andhra Pradesh and Telangana had 243MW on line at year-end 2014, up 350% increase from 2013 levels. Each state conducted a 500MW auction in 2014 that generated strong responses from developers and among the lowest priced offers to deliver clean power in the country. This capacity is under development currently. Both Telanagan and Andra Pradesh have announced plans for a couple of GW solar auctions for 2015 including Telangana's 2GW.

NTPC, India's largest power generator, is seeking to develop 1.75GW of new solar capacity in the new Andhra Pradesh through various schemes.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

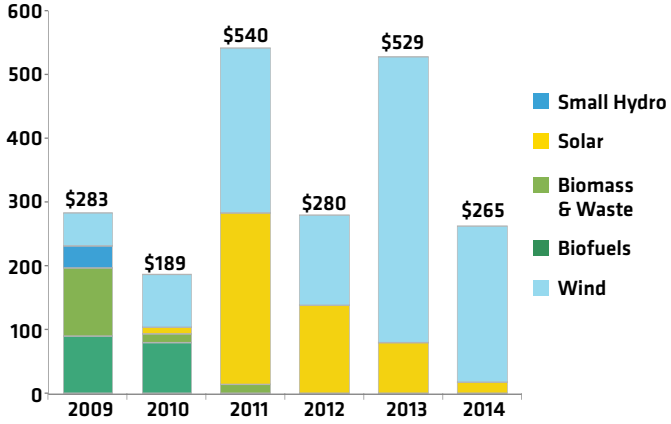
20.6GW total installed capacity



Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy, Southern Regional Power Committee
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

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

$2.1bn total cumulative investment



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

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

Gujarat

GDP: **$147.6bn**
Five-year economic growth rate: **3.7%**
Population: **63.3m**
Total clean energy investment, 2009-2014: **$6.1bn**
Installed power capacity: **30.1GW**
Renewable share: **14.8%**
Total clean energy generation: **7.2TWh**
Top energy authority: **Energy & Petro Chemicals Department, Government of India**

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
4	6	1.25

OVERVIEW

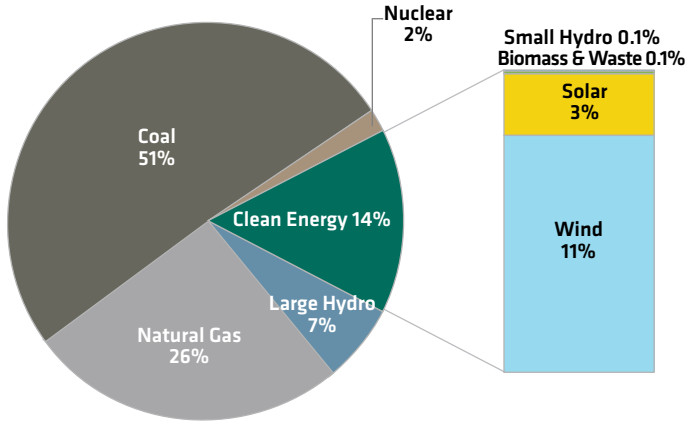
Gujarat is highly industrialized, progressive, has excess power generating capacity, and can claim a 100% electrification rate among its citizens. The state is one of the few in India to feature private distribution utilities – the only ones rated 'A+' by the Ministry of Power in 2013.

Of Gujarat's total 30GW of capacity, half is represented by coal. Gujarat also has 7.8GW of gas – more than any other state and over half of India's total capacity. Renewables at 4.4GW represent 14% with wind accounting for most at 3.5GW. Gujarat now faces challenges accommodating a larger share of wind and trying to encourage forecasting for better planning and management.

The state has 902MW of solar installed. That is more than any other state as of year-end 2014 but Rajasthan is well on track to surpass it in 2015. Most of the solar was installed in 2012 as the state offered a very attractive feed-in tariff under a policy established in 2009. The state has since stopped permitting any new utility-scale solar projects on concerns of the utility overpaying generators. However, projects permitted under other programs such as the National Solar Mission can still be developed and with a new national 100GW solar goal announced, Gujarat is now contemplating a new solar policy in 2015.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

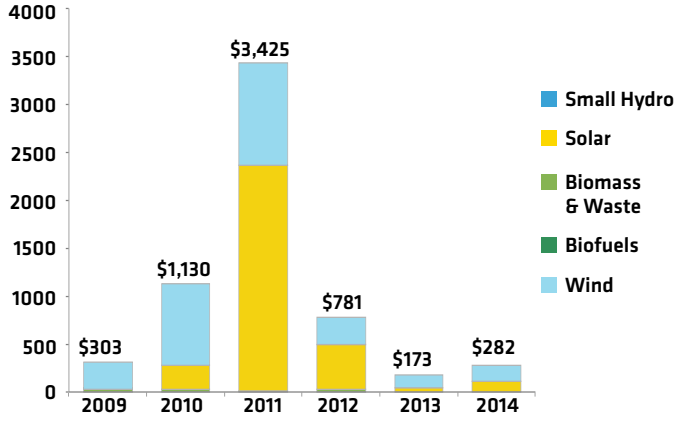
30.1GW total installed capacity



Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy, Nuclear Power Corporation of India
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

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

$6.1bn total cumulative investment



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

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

Karnataka

GDP: **$116.5bn**

Five-year economic growth rate: **3.8%**

Population: **63.9m**

Total clean energy investment, 2009-2014: **$4.6bn**

Installed power capacity: **14.0GW**

Renewable share: **33.3%**

Total clean energy generation: **10.1TWh**

Top energy authority:

Energy Department, Government of Karnataka

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
1	2	1.36

OVERVIEW

Karnataka is perhaps best known for Bangalore, 'India's Silicon Valley', where much of the country's information technology and software services industries reside. A number of companies in these sectors are today contemplating procuring dedicated renewable energy, particularly solar, to power their offices and data centers.

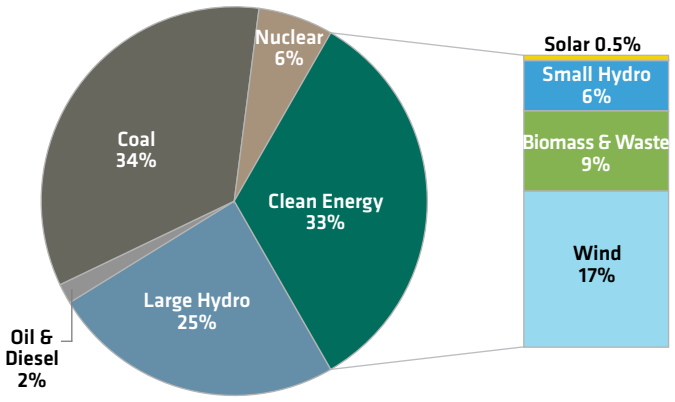
Of Karnataka's 14GW of power-generating capacity, 4.8GW is coal and 3.4GW is large hydro. Renewables account for 4.7GW, or one-third of the total, and wind represents half of that. Still, some of the state's best wind resources remain unexploited in forested areas. It is estimated that projects in some of the best sites could achieve capacity utilization factors of 40% – far above India's national average for wind of just 23%. Karnataka's regulators appear comfortable with wind's rising share of generation because of the additional significant presence of large hydro capacity to stabilize the grid.

Karnataka had just 74MW solar installed at year-end 2014 but that is poised to grow considerably in coming years. The state has set a target of 2GW solar by 2022 and conducted a 500MW tender in 2014 after three smaller tenders in 2012 and 2013.

Finally, Karnataka has considerable biomass capacity (1.3GW) online operating at a higher capacity factor compared to many other states.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

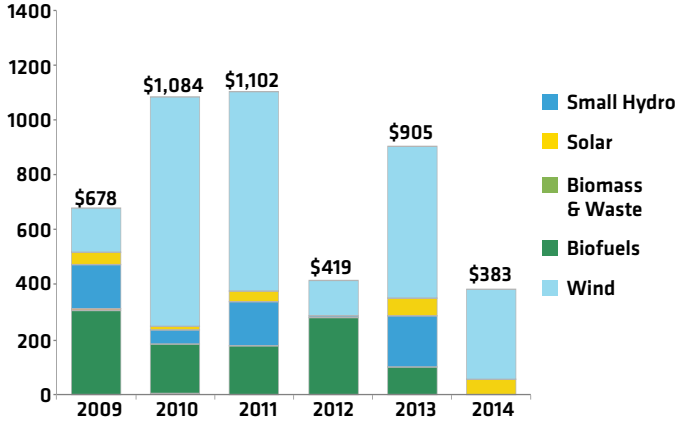
14.0GW total installed capacity



Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy, Karnataka Renewable Energy Development, Nuclear Power Corporation of India

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

$4.6bn total cumulative investment



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

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

Madhya Pradesh

GDP: **$88.5bn**
Five-year economic growth rate: **7.3%**
Population: **76m**
Total clean energy investment, 2009-2014: **$2.7bn**
Installed power capacity: **17.2GW**
Renewable share: **6.7%**
Total clean energy generation: **1.5TWh**
Top energy authority:
Energy Department, Government of Madhya Pradesh

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
8	3	1.31

OVERVIEW

Located in the center of India, Madhya Pradesh is one of the country's largest states by land area. Agriculture accounts for roughly one third of all economic activity in Madhya Pradesh – more than in any other Indian state assessed for *Climatescope*.

Of 17.2GW power generation capacity on line in the state at year-end 2014, renewables accounted for 1.2GW, or 6%. The state does not have particularly strong wind resources but offers the most generous wind feed-in tariff in India. This has resulted in wind accounting for half of Madhya Pradesh's total renewables capacity.

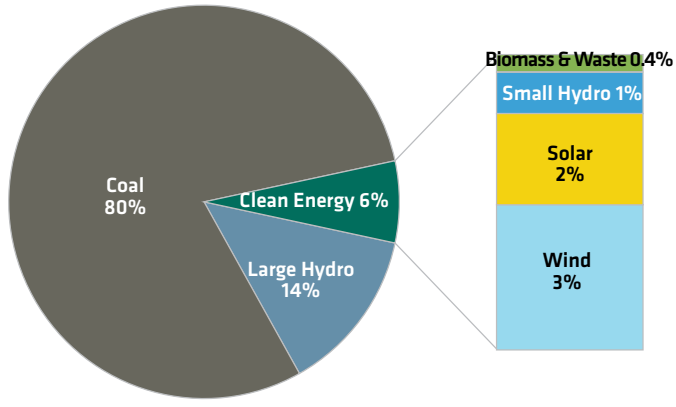
The state also features good sun and substantial open spaces. In addition, the government's generous policy of offering token leases of public lands for INR1/year has allowed Madhya Pradesh to emerge as second best for solar project development after neighboring state Rajasthan.

As of year-end 2014, Madhya Pradesh had 356MW of solar capacity commissioned and was expecting to almost double that by the end of 2015. The state conducted a 200MW tender in 2012 to sign long-term power delivery contracts from solar, then a 100MW tender in 2014. It has announced plans for a 300MW tender for 2015.

Madhya Pradesh's distribution utilities received a 'B' rating from the Ministry of Power in 2013, reflecting their relatively weak financial health. While their condition appears to be improving, these utilities still suffer from distribution losses as high as 19-22%.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

17.2GW total installed capacity

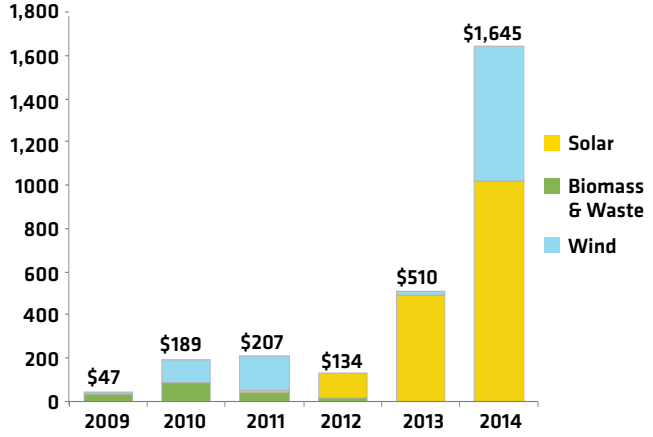


Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy

Such losses impact their ability to support substantial new solar capacity and to attract risk-averse project developers. Still, Madhya Pradesh's favorable land policy and easy clearances have resulted in attracting projects supported by the federal government's Jawaharlal Nehru National Solar Mission.

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

$2.7bn total cumulative investment



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

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

Maharashtra

GDP: **$302.4bn**
Five-year economic growth rate: **4.4%**
Population: **117.6m**
Total clean energy investment, 2009-2014: **$6.6bn**
Installed power capacity: **33.8GW**
Renewable share: **19.1%**
Total clean energy generation: **7.9TWh**
Top energy authority: **Industries, Energy & Labour Department, Government of Maharashtra**

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
5	4	1.29

OVERVIEW

Maharashtra is the home to Mumbai, India's financial capital, with its heavy concentration of banks, financial institutions and corporate headquarters. Mumbai is one of India's few cities to feature private distribution utilities. Meanwhile, the state as a whole is highly industrialized and its economy is largest among all Indian states.

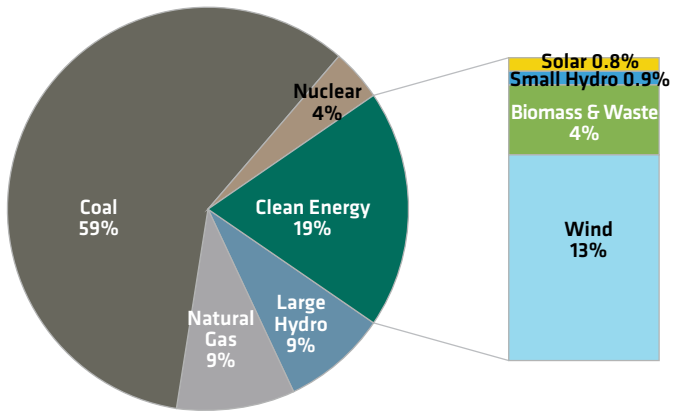
Of Maharashtra's total 37GW of power generation capacity, 23GW is represented by coal. Renewables account for 6.4GW, or 17% of total capacity with wind accounting for two-thirds of that. While the state does not feature India's best wind resource, its high feed-in tariff has led to a surge in wind capacity. In 2014 alone, Maharashtra added 920MW of wind, or 40% of what was built nation-wide that year.

This rising share of wind generation has begun to pose grid-stability challenges as the power is often generated during the monsoon season when the power deficit is among the lowest. Still, Maharashtra is now contemplating a new renewable energy target of 14.4GW by 2020. Of this, 7.5GW would come from solar with 5GW from wind. At present, the state has just 287MW solar on line, most of it owned by the Maharashtra State Power Generation Company.

To date, Maharashtra has done relatively little to encourage private investment in solar; it has held no tenders for power contracts and offers no feed-in tariffs. Due to heavy industrialization the state has a high and growing power demand and may be able to accommodate the ambitious new renewable energy targets. Still, renewables will surely face stiff competition; the state commissioned no less than 6.6GW of coal in 2014.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

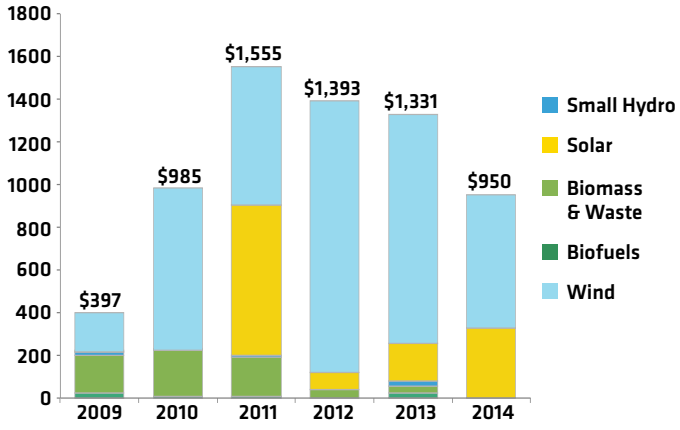
33.8GW total installed capacity



Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy, Maharashtra Energy Development Agency, Nuclear Power Corporation of India
Note: Negligible values for oil & diesel cannot be graphically represented due to scale, see source data for the complete numbers.

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

$6.6bn total cumulative investment



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

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

Punjab

GDP: **$62.6bn**
Five-year economic growth rate: **3.3%**
Population: **29.0m**
Total clean energy investment, 2009-2014: **$971.5m**
Installed power capacity: **6.4GW**
Renewable share: **10.4%**
Total clean energy generation: **238.2GWh**
Top energy authority:
Energy Department, Government of Punjab

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
7	9	1.08

OVERVIEW

Punjab is known for its fertile lands, small-scale manufacturing industry and good infrastructure. Agriculture contributes about a quarter of the state's GDP and land prices are higher on average than in other states.

Located close to the Himalayas, Punjab has several prominent rivers useful in hydro power generation. As of year-end 2014, the state had 4.7GW of coal and 1.1GW of large hydro capacity on line. Non-large hydro renewables represented 10% of total capacity with biomass and waste accounting for the biggest chunk at 71% of that. Other sources of renewables capacity: small hydro and solar.

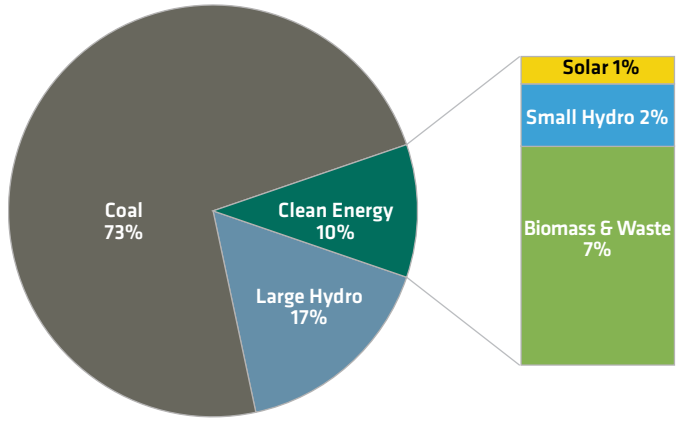
Punjab has recently stepped up efforts to add more solar capacity locally. It held a tender offering 300MW in power contracts in 2013 and a 250MW tender at the end of 2014. Scarcity of land for solar and high land prices have led to higher bids from solar developers than in other states, however.

By year-end 2014, Punjab had roughly 60MW of solar on line and was expecting to see that ramp up sharply with capacity to surpass 200MW by the end of 2015. The state is also keen on solar rooftop generation and recently made 'net metering' available to system owners, allowing them essentially to be compensated for excess power they push back into the grid.

Punjab is not very windy and has seen no major wind projects developed yet. Its distribution utility has a favorable 'B+' rating and was recently recognized for the significant reduction in its transmission and distribution losses over the past seven years.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

6.4GW total installed capacity

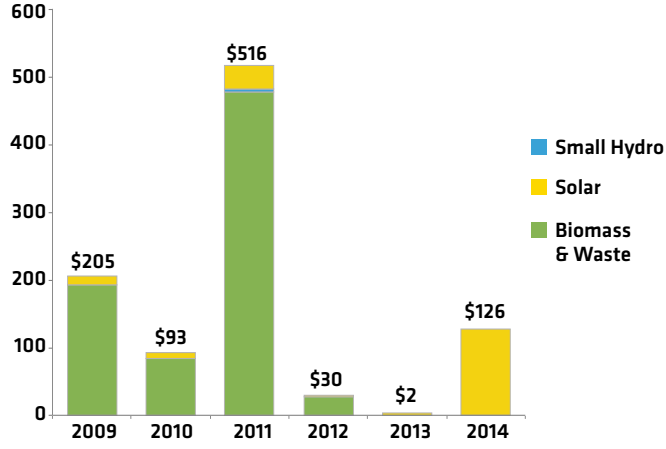


Source: Bloomberg New Energy Finance, Punjab Energy Development Agency

The utility is also upgrading its distribution network by increasing the share of information technology used in network management and monitoring. The scheme is incentivized and financially supported by the federal government which is helping the utility in reducing losses, theft and offering better quality of services.

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

$971.5m total cumulative investment



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

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

Rajasthan

GDP: **$100.8bn**

Five-year economic growth rate: **4.8%**

Population: **71.7m**

Total clean energy investment, 2009-2014: **$8.3bn**

Installed power capacity: **12.9GW**

Renewable share: **31.4%**

Total clean energy generation: **4.3TWh**

Top energy authority:

Energy Department, Government of Rajasthan

INDIAN RANKING		OVERALL SCORE
2014	2015	20115
3	5	1.28

OVERVIEW

Rajasthan holds an important place on India's renewable energy map due to its barren lands, exceptional sun, and strong winds. It is a top choice for developers of large-scale solar projects and has seen rapid growth in wind power generation due to favorable feed-in tariffs.

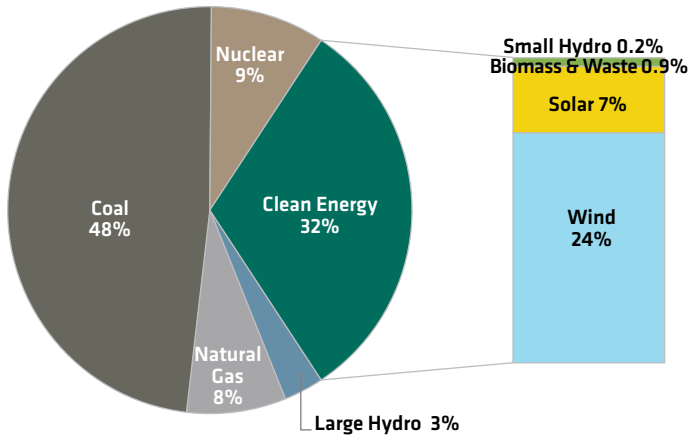
Renewable energy at 4GW represents a high share (32%) of total power capacity of 13GW compared to other states. This is led by wind with 3GW and followed by 856MW of solar. Overall renewable energy capacity grew by 14% in 2014.

Rajasthan has done little policy-wise to encourage solar development through incentives and the state's distribution utilities are among the financially shakiest in India. Rajasthan conducted only one solar tender of 100MW in 2013 and has not granted permits for any new capacity under state incentives. However, in 2014 it did modify its land policies to ease developer access to land clearances.

Most solar capacity built to date has been under the federal government's Jawaharlal Nehru National Solar Mission. India's overall ambitious targets are expected to continue driving solar growth in the state which is slated to become the national leader for most installed capacity in 2015.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

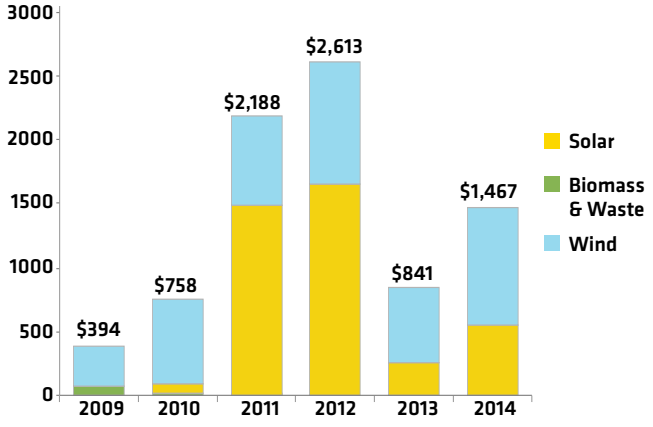
12.9GW total installed capacity



Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy, Rajasthan Renewable Energy Corporation, Nuclear Power Corporation of India

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

$8.3bn total cumulative investment



Source: Bloomberg New Energy Finance

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

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

Tamil Nadu

GDP: **$166.9bn**
Five-year economic growth rate: **3.9%**
Population: **75.5m**
Total clean energy investment, 2009-2014: **$6.3bn**
Installed power capacity: **23.9GW**
Renewable share: **36.9%**
Total clean energy generation: **12.8TWh**
Top energy authority:
Energy Department, Government of Tamil Nadu

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
2	1	1.38

OVERVIEW

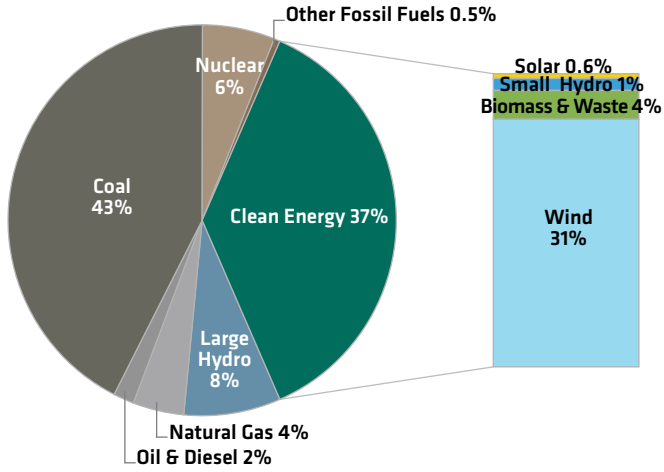
Until recently, Tamil Nadu was regarded as India's unrivalled leader for wind development due to exceptional local conditions and high installation rates. Today, at 7.4GW, Tamil Nadu still has more wind installed than any other state.

Since 2012, however, annual new-build rates have fallen and in 2014 just 208MW was commissioned. This is largely due to the poor financial health of state-owned distribution utility companies and occasional payment delays to power project owners. Cases of wind generation curtailment during the peak windy season have also dimmed investor enthusiasm for Tamil Nadu considerably.

The state's total power generation capacity is 23.8GW of which renewables account for 37%, or 8.8GW. Wind represents 84% of all renewables followed by 869MW of biomass. In 2013, the state conducted a tender for 1GW of solar power delivery capacity but that received a poor response and was deemed unsuccessful. In September 2014, Tamil Nadu issued a flat feed-in tariff of INR 7.01/kWh to solar projects without any auction provided they be commissioned by September 2015. The final commissioning deadline has since been pushed back by six months to March 2016 to give developers more time to complete their work. The state also has a net-metering policy for rooftop solar projects.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

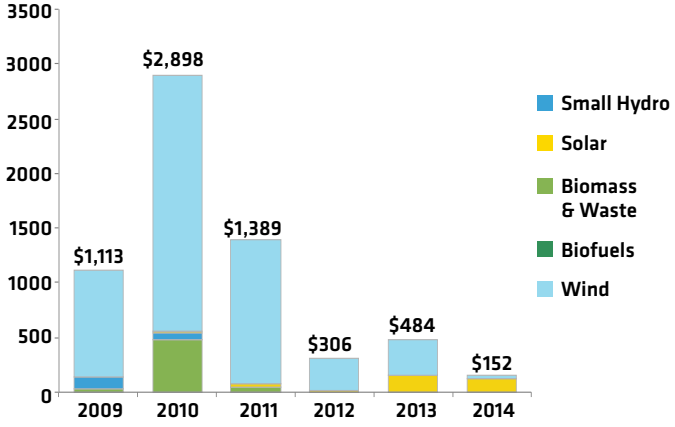
23.9GW total installed capacity



Source: Bloomberg New Energy Finance, Central Electricity Authority, Ministry of New and Renewable Energy, Nuclear Power Corporation of India, Southern Regional Power Committee, Tamil Nadu Energy Development Agency

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

$6.3bn total cumulative investment



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

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

Uttar Pradesh

GDP: **$173.9bn**

Five-year economic growth rate: **4.2%**

Population: **209.1m**

Total clean energy investment, 2009-2014: **$417.0m**

Installed power capacity: **22.7GW**

Renewable share: **12.1%**

Total clean energy generation: **4.3TWh**

Top energy authority:

Department of Energy, Government of Uttar Pradesh

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
10	7	1.20

OVERVIEW

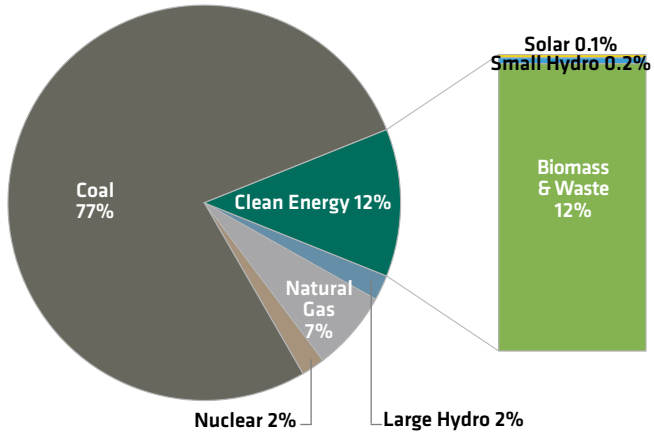
Situated on the highly fertile Gangetic Plain, Uttar Pradesh is India's most populous state with over 200 million inhabitants. It is also India's largest sugarcane producer and among its top wheat producers. And it has a sizeable presence of small and medium enterprises (SME).

Of 22GW total power capacity, coal represents 17.6GW and renewables 2.7GW, or 12%. Nearly all renewable capacity in the state is accounted for biomass. Several sugar mills operate in the state, and use bagasse (fibrous cane waste) for biomass-fired cogeneration. The state's policy of maintaining a high minimum sugarcane purchase price has affected the profitability and viability of sugar mills which can impact the operation of cogeneration plants as well.

Uttar Pradesh has no major wind projects installed to date. Its wind potential is regarded as relatively low and has as a result been largely unexploited. The government is keen on developing solar and has conducted tenders of 200MW and 300MW in 2013 and 2014, respectively. However, due to the poor financial health of local distribution utilities and problems associated with the structure of power purchase agreements, these auctions did not generate strong responses and received high bid prices. Solar projects totaling just 29MW were commissioned in 2014. The state has also allowed net-metering to encourage rooftop solar power generation.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

22.7GW total installed capacity

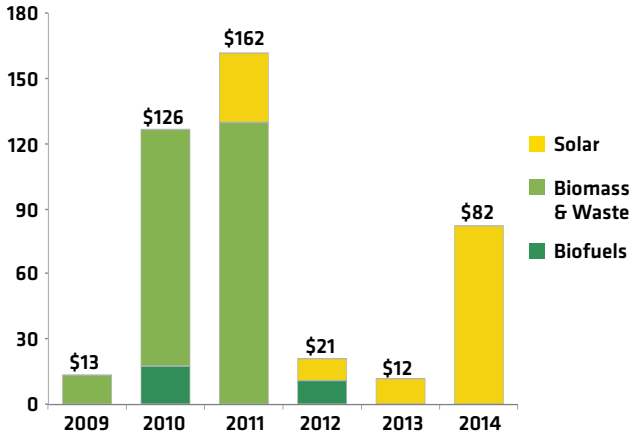


Source: Bloomberg New Energy Finance , Central Electricity Authority, Ministry of New and Renewable Energy, Nuclear Power Corporation of India

Many villages in the state lack access to reliable grid electricity. This has led to the deployment of micro-grid and off-grid systems by entrepreneurs and companies supported by various national and international grants.

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

$417m total cumulative investment



Source: Bloomberg New Energy Finance

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

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

ASIA : INDIA

West Bengal

GDP: **$138.9bn**
Five-year economic growth rate: **5.0%**
Population: **95.5m**
Total clean energy investment, 2009-2014: **$176.6m**
Installed power capacity: **10.2GW**
Renewable share: **4.3%**
Total clean energy generation: **754.0GWh**
Top energy authority:
Energy Department, Government of West Bengal

INDIAN RANKING		OVERALL SCORE
2014	2015	2015
9	10	1.07

OVERVIEW

West Bengal is among India's most populous and coal-rich states. For more than three decades until 2011, it had been governed by a communist government, which appeared to stunt growth of private sector activity in renewables. Still, the state is home to some of India's oldest solar equipment manufacturers.

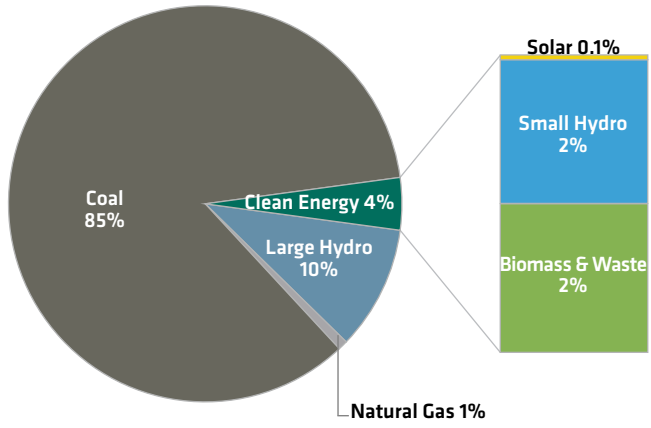
West Bengal has a privately-owned distribution utility serving its capital Kolkata but state-owned utilities predominate elsewhere. State utilities are in good financial health and were rated 'A' in 2013 by the Ministry of Power. West Bengal has total power generation capacity of 10GW with coal accounting for 8.6GW. Renewables play a small role in the power matrix at 400MW, or 4% with nearly all of that small hydro and biomass. Grid-connected solar capacity is miniscule at roughly 7MW.

Slow growth in renewable energy capacity can also be attributed to the state's claim of having a power surplus. West Bengal does not have particularly good wind resources and it has been formulating policies for the growth of rooftop and net-metering based solar.

Availability of land and its timely acquisition is also a constraint. In recent times, the government has spoken of using state-owned barren land for utility scale solar projects and disclosed plans for setting up a 250MW project.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

10.2GW total installed capacity

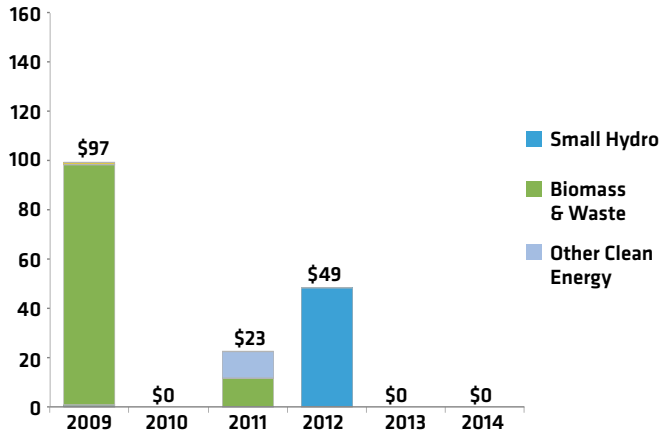


Source: Bloomberg New Energy Finance, Central Electrical Authority, State Load Dispatch Centre

West Bengal was one of the first to install solar micro-grids in India to bring electricity to the densely forested Sunderbans delta region. The state has an active micro-grid sector especially within the remote tribal areas. Many of these projects are being set up within the national rural electrification program's decentralized distribution and generation component for remote villages.

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

$176.6m total cumulative investment



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

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

SOUTHEAST ASIA

Indonesia

GDP: **$888.5bn**

Five-year economic growth rate: **3.3%**

Population: **252.8m**

Total clean energy investments, 2009-2014: **$5.2bn**

Installed power capacity: **54.8GW**

Renewable share: **6.2%**

Total clean energy generation: **20.6TWh**

Top energy authority:

Ministry of Energy and Mineral Resources

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
9	11	1.61

PARAMETER	RANKING	SCORE
I. Enabling Framework	37	1.05
II. Clean Energy Investment & Climate Financing	10	0.88
III. Low-Carbon Business & Clean Energy Value Chains	08	3.77
IV. Greenhouse Gas Management Activities	10	2.43

SCORE SUMMARY

Indonesia scored 1.614 overall in *Climatescope* 2015, placing it 11th on the list of countries. The country's ranking slipped two places from 2014, largely due to a lower score on Parameter I Enabling Framework. A delayed implementation of geothermal and solar policies dragged down its performance on that indicator.

Indonesia's score on Parameter I Enabling Framework fell 11 places in 2015, with a score of 1.05. The value of loans, grants and grant programs in the country fell from 2014, while the cost of debt increased.

Indonesia's score on Parameter II Clean Energy Investment & Climate Financing, 0.88, improved significantly from last year's 0.44. Total clean energy investment surged from $0.4bn in 2013 to $1.9bn in 2014, largely due to a consortium's investment of $1.6bn in the Sarulla geothermal project.

The country in 2015 matched its 8th-place 2014 ranking on Parameter III Low-Carbon Business & Clean Energy Value Chains. Its 2015 score was 3.77 versus 3.64 in 2014. The gain was due to a slight increase in the number of service providers entering the renewable energy sector.

Indonesia scored 2.43 in Parameter IV Greenhouse Gas Management Activities, which was good for a 10th-place ranking. Its 2014 metrics were 2.41 and 11th position. The government updated its national energy policy with a more ambitious renewable energy target for 2025.

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

OVERVIEW

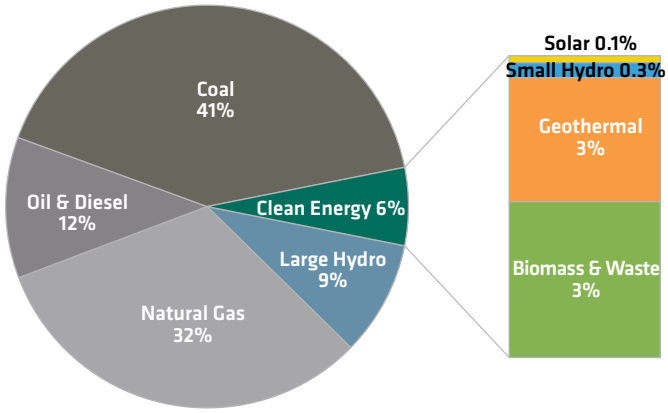
Indonesia has ambitious renewable energy and rural electrification targets. It aims to boost renewables' share of the total primary energy mix to 23% by 2025, compared to 15% previously. The government also plans to encourage distributed renewable energy with an eye toward achieving 100% electrification by 2020 (up from 84.5% today).

To date, Indonesia has been relatively ambitious in introducing clean energy-friendly policies. It has conducted reverse auction programs for power contracts with geothermal and solar projects. Meanwhile, biomass & waste and small hydro projects have been offered feed-in tariffs. The country also has biofuel consumption mandates for the transport, commercial and power generation sectors.

Furthermore, the government makes available a broad range of tax incentives, including income tax rebates, accelerated depreciation and exemptions on import VAT. The government has still offered other supporting mechanisms, including business viability guarantees to back power purchase obligations between the state utility and private generators and a geothermal fund supporting early-stage resource exploration activities.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

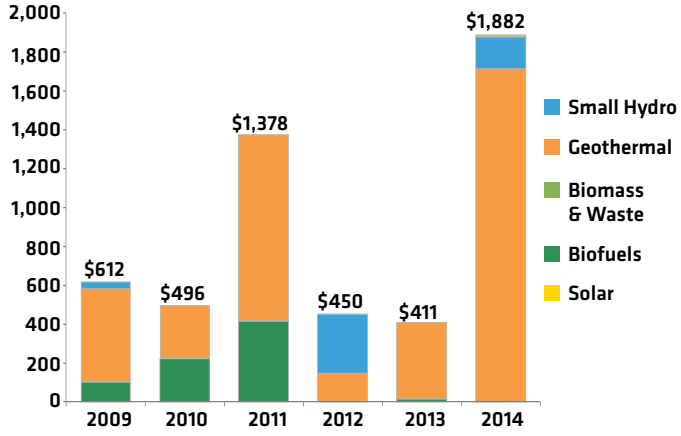
54.8GW total installed capacity



Source: Bloomberg New Energy Finance, Ministry of Energy and Mineral Resources, Perusahaan Listrik Negara, Directorate General of New & Renewable Energy and Energy Conservation, National Council on Climate Change of Indonesia, National Development Planning Agency
Note: Negligible values for wind cannot be graphically represented due to scale, see source data for the complete numbers.

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

$5.2bn total cumulative investment



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

KEY POLICIES

Auctions	There is a solar auction program with a ceiling price set at $0.25/kWh. For projects using at least 40% locally-manufactured equipment, the tariff is $0.30/kWh.
Biofuel Blending Mandate	A national target of 25-30% biodiesel consumption and 20% bioethanol consumption for transport, power, industrial and commercial sectors by 2025.
Debt-Equity Incentives	Incentives include the Geothermal Fund Facility, the Indonesia Infrastructure Guarantee Fund and Biofuels Development Credits for the agricultural sector.
Energy Targets	Indonesia updated its national energy policy in 2014 with a more ambitious renewable energy target for 2025 - renewable energy's share in the total primary energy mix was raised to 23% from 15% previously. It also introduced a new target of 31% by 2050.
Feed-in-Tariffs	Electricity produced by biomass and waste-to-energy power plants receive feed-in tariffs of $0.1-0.18/kWh. small hydro power tariff range '$0.05-0.14/kWh depending on the project location, grid-connected voltage and project phase.
Tax Incentives	Incentives include: 5% tax deduction per year for 6 years, accelerated depreciation of capital and fixed assets, import duty exemption for renewable energy equipment.

Source: Bloomberg New Energy Finance Policy Library

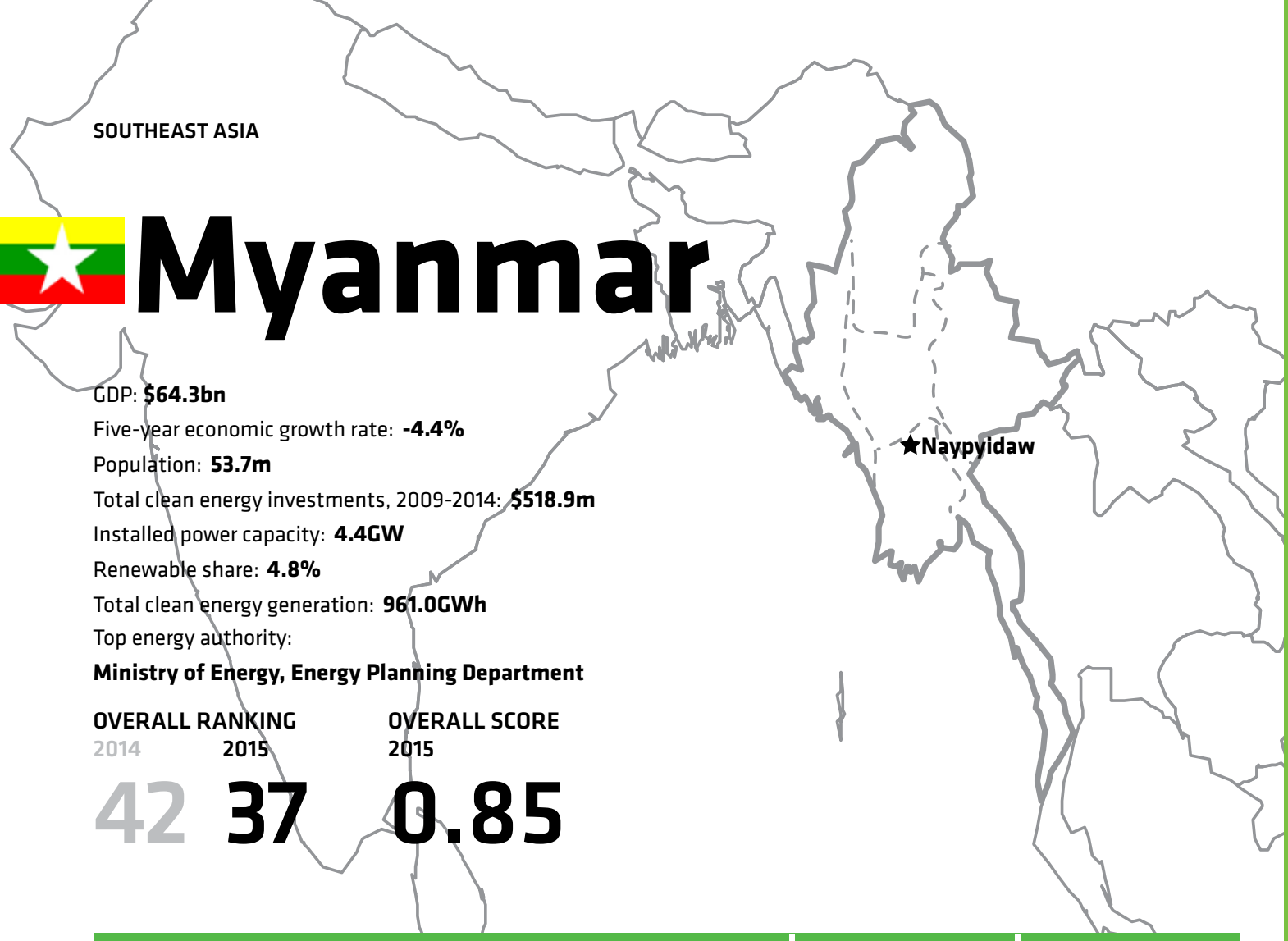
All of this would suggest a regulatory climate highly conducive to clean energy development. However, project development has been slower than expected largely because these policies have not delivered. The reverse auctions have not been conducted successfully, and the feed-in tariff rates were not sufficiently high to generate excitement among private developers.

Furthermore, regulatory barriers have significantly slowed the rate of project approval, and financing difficulties have caused a halt in project development. In 2014 only 100MW of renewable capacity was built.

Still, some policy milestones achieved in 2014 are expected to improve the situation in the coming years.
A geothermal law was enacted in August 2014 to enable exploration drilling in protected forest areas and provide expedited permitting. Fossil-fuel subsidies were mostly removed to make renewable energy cost-competitive. The small-hydro feed-in tariff was increased.

SOUTHEAST ASIA

Myanmar



GDP: **$64.3bn**

Five-year economic growth rate: **-4.4%**

Population: **53.7m**

Total clean energy investments, 2009-2014: **$518.9m**

Installed power capacity: **4.4GW**

Renewable share: **4.8%**

Total clean energy generation: **961.0GWh**

Top energy authority:

Ministry of Energy, Energy Planning Department

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
42	37	0.85

PARAMETER	RANKING	SCORE
I. Enabling Framework	44	0.84
II. Clean Energy Investment & Climate Financing	38	0.33
III. Low-Carbon Business & Clean Energy Value Chains	17	2.60
IV. Greenhouse Gas Management Activities	53	0.21

SCORE SUMMARY

Myanmar in 2015 achieved a 0.85 overall score, to finish 37th among all *Climatescope* nations. The country's ranking rose five places from 2014, when it scored 0.78. This was largely due to improved scores on both parameters I and II.

Myanmar's score on Parameter I Enabling Framework increased year-to-year from 0.65 to 0.84, while its ranking improved from 49th to 44th. A new electricity law was introduced in 2014 to promote foreign investment in power projects.

The country's ranking on Parameter II Clean Energy Investment & Climate Financing rose thanks to a tenfold surge in clean energy investment, to $575m. The showcase deal was the financing of a two-phase 300MW solar project. Myanmar's Parameter II metrics were 38th place in 2015 with a score of 0.84 and 48th place in 2014 with a score of 0.26.

Myanmar in 2015 scored 2.60 on Parameter III Low-carbon Business & Clean Energy Value Chains, ranking 17th. An increasing number of distributed solar project developers and distributed energy service providers were added. Myanmar was ranked 21st on Parameter III in 2014, with a score of 2.22.

On Parameter IV Greenhouse Gas Management Activities, Myanmar fell to 53rd position in 2015 from 40th in 2014, scoring 0.21 in 2015 versus 0.71 in 2014. It experienced reverse momentum on capacity-building indicators.

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

OVERVIEW

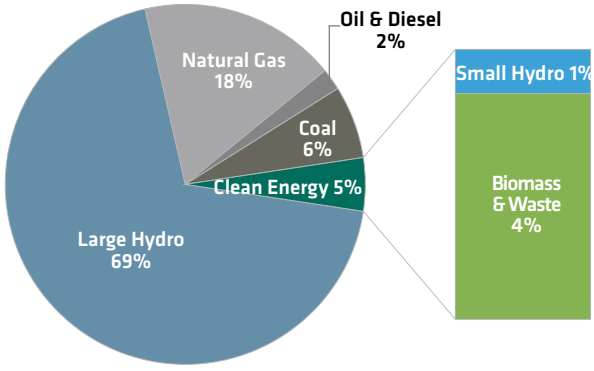
Myanmar's energy sector confronts a low electrification rate of 35%. The country had an installed power capacity of 4.4GW in 2014, of which 4.1GW was connected to the grid, mainly large hydro (3GW). The off-grid generation is mainly small hydro and biomass.

With assistance from multilateral agencies, Myanmar is formulating a long-term policy to address its low electrification. However, in the medium term (2013-2016) increasing efficiency of the existing power generation projects is a prime focus. Another objective is to reduce its reliance on coal and increase cleaner forms of power generation. The country targets an additional 3.5GW of capacity from upgrades and new power projects by 2016, including geothermal, wind and solar PV power plants.

Myanmar has recently opened to international commerce, and its economy and power sector are at an infant stage. It has limited capacity to develop its power sector and must rely on foreign investment for capacity building.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

4GW total installed capacity



Source: Bloomberg New Energy Finance, Ministry of Energy - Energy Planning Department, Myanmar Electric Power Enterprise, National Energy Management Committee, Renewable Energy Association Myanmar, Yangon City Electricity Supply Board, Ministry of Electric Power, Ministry of Industry, Ministry of Mines, Electricity Supply Enterprise, Ministry of Environmental Conservation and Forestry.

KEY POLICIES

Tax Incentives	Under a 2014 tax law, no commercial tax is to be charged on the sale of plants and crops utilized in power generation projects, solar panels, charge controllers and inverters produced locally.

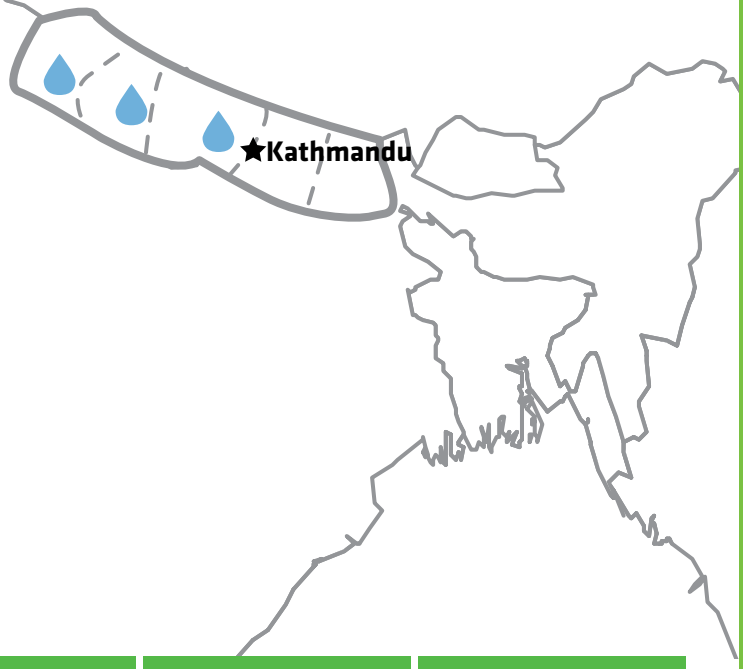
Source: Bloomberg New Energy Finance Policy Library

To encourage foreign investment the government passed a revised version of the electricity law in 2014 that permits foreign investment in power projects of any size in Myanmar with a maximum 80% ownership. The previous electricity law only allowed Myanmar citizens to invest in power projects and the project size was limited to 10MW. After the electricity law's revision, Myanmar's electric power ministry signed a memorandum of agreement with Thai developer Green Earth Power to build a 220MW solar plant in the Magway Region.

In 2015, the government released a National Energy Policy that aims to refine and develop regulations and guidelines for investors to help maximize the usage of the country's renewable resources.

Despite significant equity-investment interest from foreign developers, substantial challenges remain in the form of off-take and sovereign risk. The state-owned Rural Development Bank and multilateral banks to date are the few providers for loans to infrastructure projects.

Nepal



GDP: **$19.6bn**
Five-year economic growth rate: **4.2%**
Population: **28.1m**
Total clean energy investments, 2009-2014: **$137.0m**
Installed power capacity: **771.0MW**
Renewable share: **40.4%**
Total clean energy generation: **1.6TWh**
Top energy authority: **Ministry of Energy**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
17	10	1.63

PARAMETER	RANKING	SCORE
I. Enabling Framework	15	1.44
II. Clean Energy Investment & Climate Financing	03	1.68
III. Low-Carbon Business & Clean Energy Value Chains	15	2.65
IV. Greenhouse Gas Management Activities	30	1.01

SCORE SUMMARY

Nepal scored 1.63 in *Climatescope* 2015, placing it 10th on the list of countries overall. The country's ranking rose seven places on the list from 2014, thanks largely to strong improvement of its score on Clean Energy Investment Parameter II in general and on its Growth Rate of Clean Energy Investments Indicator, in particular.

On Enabling Framework Parameter I, Nepal scored 1.44 thanks to a particularly good performance on the Distributed Energy Regulatory Framework Indicator. In fact, it had the third highest score on Parameter I among all nations in APAC. On Clean Energy Investment and Climate Financing Parameter II, the country scored 1.68. Its score more than tripled from 2014, primarily to due to a jump in its score on Growth Rate of Clean Energy Investments Indicator and the Loans, Grants & Grant Programs Indicator.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the country saw its score unchanged at 2.65.

On Greenhouse Gas Management Activities Parameter IV, Nepal scored just 1.01 as its score declined on the Carbon Offsets Historical Activity Indicator.

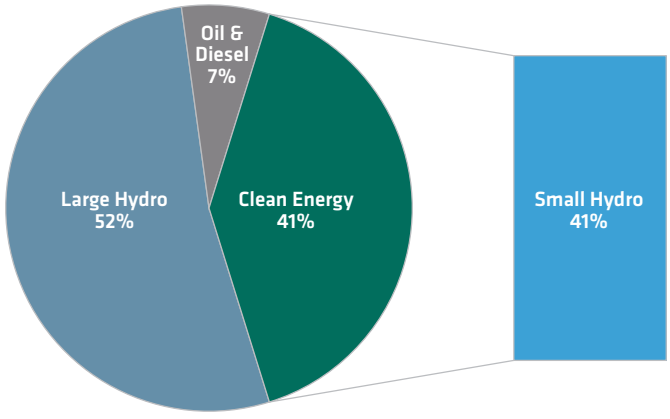
For further information, access www.global-climatescope.org/en/country/nepal

OVERVIEW

Home to Mount Everest, Himalayan glaciers and heavy rainfall, Nepal's moving-water resources are plentiful. Consequently, almost all of the country's grid connected power is generated by 718MW of hydro plants. Small hydro contributes 43.76% of the total hydro generation. In July 2014, Nepal set a target of adding 628MW of large and small hydro by 2017.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

771GW total installed capacity



Source: Bloomberg New Energy Finance , Nepal Electricity Authority, Government of Nepal Department of Electricity Development

Still, Nepal faces an energy deficit (supply fell 22% short of demand in 2014). Aside from insufficient capacity, the seasonal nature of hydro generation aggravates the problem and power cuts can last up to 12 hours a day winter. Retail tariffs are heavily subsidised, which makes it harder for renewable energy projects to compete on price without subsidy.

KEY POLICIES

Debt-Equity Incentives	Renewable energy subsidies have been introduced equal to 40% of the cost of the project (with a further 40% covered by a soft loan). The subsidy amount is determined by the remoteness of the location.
Energy Target	The 2012-13 Economic Survey set a long-term target to derive 10% of electricity generation from renewable energy by 2033. Small hydro had a 2016 target of 15MW, while wind and solar were 1MW and 6MW, respectively.
Feed-in-Tariffs	Tariffs set in 2011 for small hydro plants stand at $0.09/kWh in the dry season and $0.05/kWh in the wet season.
Tax Incentives	The 2013-14 budget lists several tax benefits for renewable energy developers, including tax holidays, reduced income tax and exemption from customs duty.

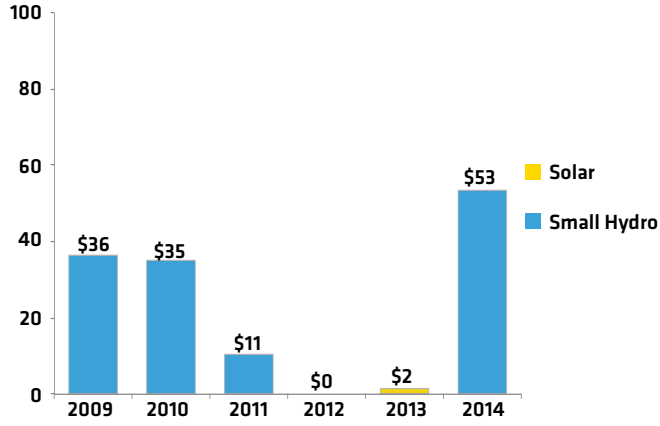
Source: Bloomberg New Energy Finance Policy Library

Over 64% of the installed hydro capacity is owned by the Nepal Electricity Authority (NEA). That authority is also the sole owner and operator of Nepal's distribution network.

Nepal offers 35-year feed-in tariffs to hydro plants of up to 25MW. The tariffs are rarely revised, and developers consider them too low. Developers also perceive high risks due to political uncertainty and NEA's weak financial health: the NEA had accumulated losses of over $250m as of early 2015. Debt financing is complicated by the country's banking rules, which require senior management of development companies to be financially liable for loans.

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

$137m total cumulative investment



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

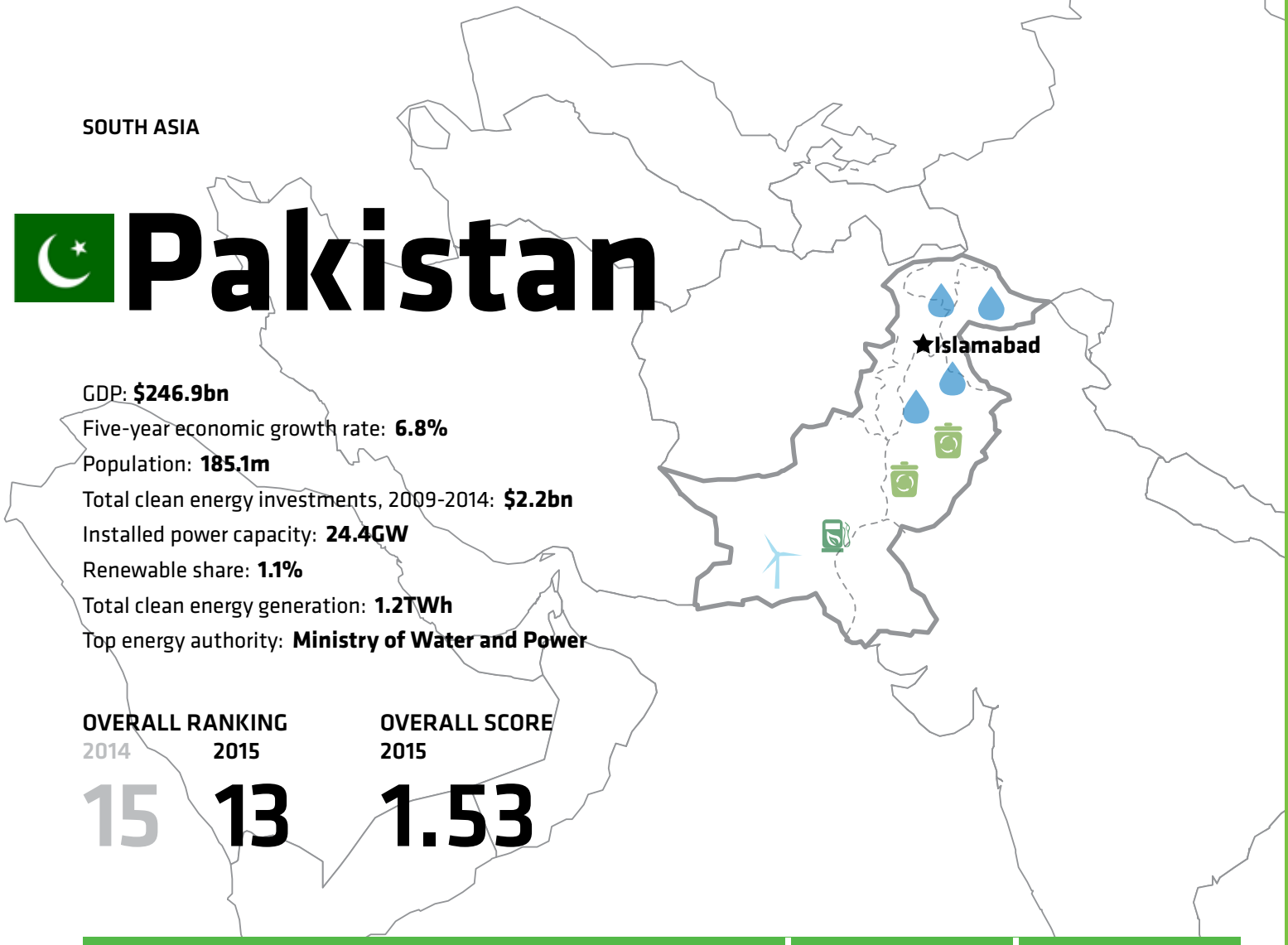
The government in 2012 launched a five-year National Rural Renewable Energy Programme. The program is supported by several development agencies, both bilateral and multilaterals, through a $184m Central Renewable Energy Fund and administered by a semi-government agency, Alternate Energy Promotion Centre.

In December 2014, the World Bank approved a loan of $130m to develop Nepal's first large grid-connected solar PV plant of 25MW and to pilot a program to reduce the distribution losses in the country.

The devastating earthquake in April 2015 damaged 42 hydro plants, according to the Independent Power Producers Association Nepal. This is expected to set back targets and progress as resources are redirected to repairing structural damage at existing dams. It is likely that Nepal's addition targets will have to be re-evaluated.

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.

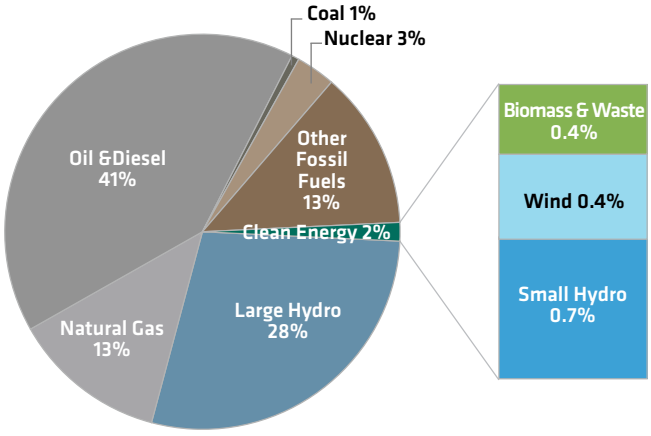
For further information, access www.global-climatescope.org/en/country/pakistan

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.

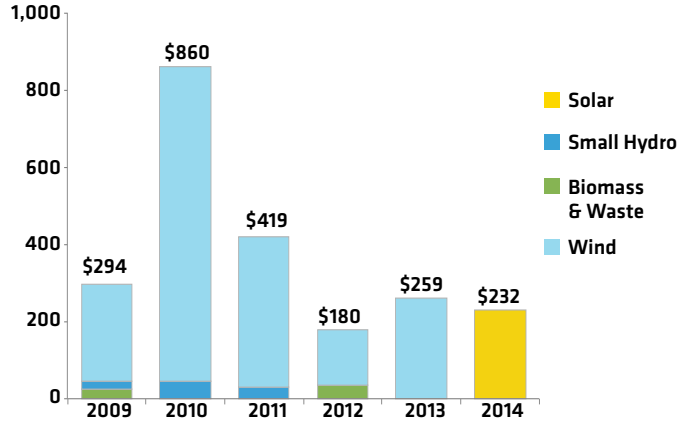
Source: Bloomberg New Energy Finance Policy Library

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.

Sri Lanka

GDP: **$74.9bn**

Five-year economic growth rate: **8.6%**

Population: **20.6m**

Total clean energy investments, 2009-2014: **$1.3bn**

Installed power capacity: **4.0GW**

Renewable share: **17.9%**

Total clean energy generation: **1.9TWh**

Top energy authority:

Ministry of Power and Energy

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
31	25	1.19

PARAMETER	RANKING	SCORE
I. Enabling Framework	40	0.89
II. Clean Energy Investment & Climate Financing	11	0.85
III. Low-Carbon Business & Clean Energy Value Chains	12	3.31
IV. Greenhouse Gas Management Activities	45	0.58

SCORE SUMMARY

Sri Lanka scored 1.19 in *Climatescope* 2015, placing it 25th on the list of countries overall. The country's ranking rose six places on the list from 2014, thanks largely to strong improvement of its score on Clean Energy Investment Parameter II in general and on the Growth Rate of Clean Energy Investments Indicator, in particular.

On Enabling Framework Parameter I, Sri Lanka scored 0.89, down from 1.08 in 2014, due to a lack of policy activity and the expiration and non-renewal of a feed-in tariff.

On Clean Energy Investment and Climate Financing Parameter II, the country scored 0.85. Its parameter score rose primarily due to jump in its clean energy investments. In fact, it had the fourth highest score on Parameter II among all nations in APAC.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the country saw its score unchanged at 3.31.

On Greenhouse Gas Management Activities Parameter IV, Sri Lanka scored just 0.58 because of its lack of effective emissions reduction policies and very few offset projects currently in operation.

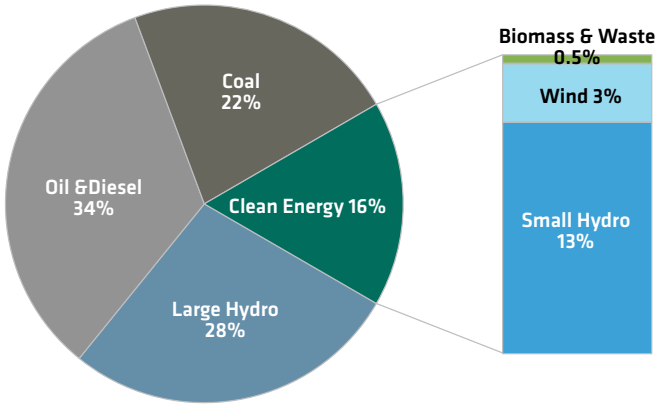
For further information, access www.global-climatescope.org/en/country/sri-lanka

OVERVIEW

Sri Lanka – a tropical island nation in the Indian Ocean – boasts a 96% household electrification rate. The country has enough installed capacity (3.9GW) to meet its peak demand (2.2GW) but a third of this capacity comes from diesel-burning plants dependent on imported fuel.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

4.0GW total installed capacity



Source: Bloomberg New Energy Finance, Sri Lanka Sustainable Energy Authority, Ceylon Electricity Board
Note: Negligible values for solar cannot be graphically represented due to scale, see source data for the complete numbers.

Sri Lanka is trying to reduce its dependence on oil – in part by using more coal. In 2014, a 600MW unit of the LakWijaya Coal Power Project was commissioned, and a 500MW power station at Trincomalee is expected to be operational by 2017.

Of the total 651MW of Sri Lanka's renewable energy installed, mini hydro represents 80% (523MW).The monsoons and highlands in south-central Sri Lanka favor the development of hydro projects. Although wind has strong potential, a limited grid network in high-resource zones constrains its development.

KEY POLICIES

Energy Targets	The 2010 Development Policy Framework sets a renewable energy generation target of 10% of overall generation by 2016 and 20% by 2020.
Feed-in-Tariffs	FiTs were offered for projects under 10MW between January 2012 and December 2013, with an option of a three-tiered or flat tariff.
Net Metering	For renewable plants under 10MW, consumption from the grid can be offset. However, there will be no payment for electricity exported to the grid.
Tax Incentives	There is a range of incentives including tax holidays, import duty waivers, VAT & Port and Airport Development Levy exemption for renewable energy developers.

Source: Bloomberg New Energy Finance Policy Library

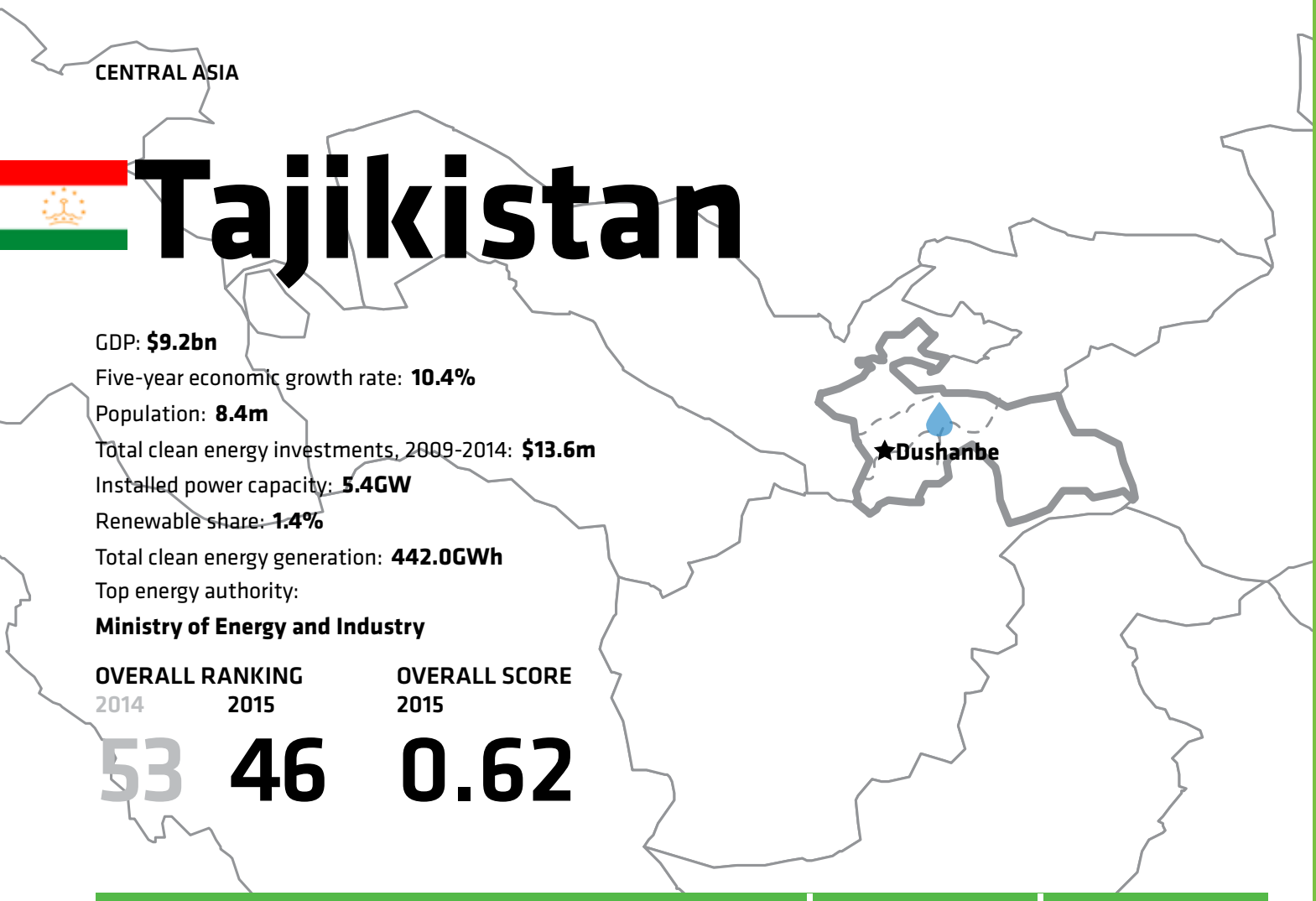
Driven by feed-in tariffs that expired in December 2013, the country reached 108MW of wind capacity by 2014. Projects under 10MW qualify for pre-determined feed-in tariffs, whereas larger projects must seek project tariffs in consultation with the Ministry of Power and Energy. A follow-up feed-in tariff has not been announced; concerns by the Ceylon Electricity Board about grid instability due to more intermittent wind generation has limited new build.

Sri Lanka has one 1.4MW solar photovoltaic power plant and 18MW of biomass capacity. Solar is perceived as expensive, although there is a net-metering policy to encourage rooftop installations. Biomass growth has been constrained by high levels of moisture content, which poses a challenge in tar disposal.

In 2008, the country set a target of 10% renewable energy generation by 2015 and 20% by 2020. It has already achieved the 2015 target and is considering whether to increase the 2020 target.

Sri Lanka's transmission and distribution sectors are state-owned, while 48% of its generation is owned by independent power producers. For generation projects larger than 25MW, partial government ownership is compulsory.

Tajikistan



GDP: **$9.2bn**

Five-year economic growth rate: **10.4%**

Population: **8.4m**

Total clean energy investments, 2009-2014: **$13.6m**

Installed power capacity: **5.4GW**

Renewable share: **1.4%**

Total clean energy generation: **442.0GWh**

Top energy authority:

Ministry of Energy and Industry

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
53	46	0.62

PARAMETER	RANKING	SCORE
I. Enabling Framework	41	0.86
II. Clean Energy Investment & Climate Financing	52	0.14
III. Low-Carbon Business & Clean Energy Value Chains	46	0.76
IV. Greenhouse Gas Management Activities	39	0.80

SCORE SUMMARY

Tajikistan scored 0.62 in *Climatescope* 2015, placing it 46th on the list of countries overall. The country's ranking rose seven places on the list from 2014, thanks largely to strong improvement of its score on Enabling Framework Parameter I in general and on the Growth Rate of Installed Capacity Indicator, in particular.

On Enabling Framework Parameter I, Tajikistan scored 0.86 thanks to a particularly good performance on the Growth Rate of Installed Capacity Indicator, the Growth Rate of Electricity Generation Indicator and the Clean Energy Rural Electrification Indicator. The country saw a jump in investment that helped drive this change.

On Clean Energy Investment and Climate Financing Parameter II, the country scored 0.14. Its score fell primarily due to a decline in its score on the Green Micro Finance Indicator.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Tajikistan's score was unchanged at 0.76.

On Greenhouse Gas Management Activities Parameter IV, Tajikistan scored just 0.80 because of lack of effective emissions reduction policies and voluntary corporate activities in this domain.

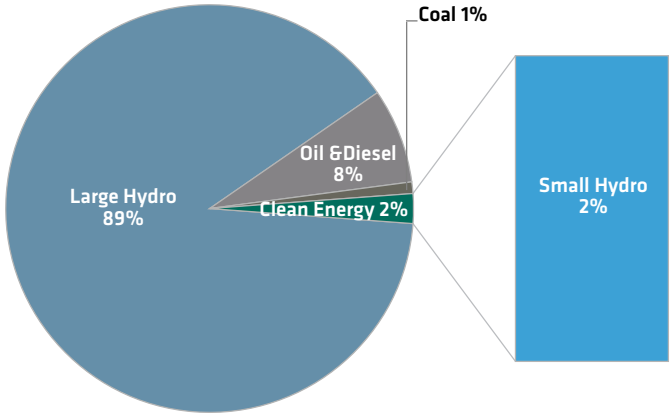
For further information, access www.global-climatescope.org/en/country/tajikistan

OVERVIEW

Tajikistan is a landlocked country in central Asia known for its mountainous terrain and origin of many rivers flowing across the region. The country has very high potential for hydro power, which already supplies an estimated 98% of its total electricity, with tiny shares held by oil and coal.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

5.4GW total installed capacity



Source: Bloomberg New Energy Finance.

Barqi Tojik (BT) is Tajikistan's vertically integrated utility that delivers electricity to almost all grid-connected consumers. Highly subsidized residential tariffs, high transmission and distribution losses and low collection rates have weakened BT's financial health. It is exploring the feasibility of restructuring into separate entities. The Tajik government is also exploring options to set up public private partnership projects to operate in power generation, transmission and distribution sectors. Pamir Energy is the first such example and other options are being developed with support from international organizations including DFID.

KEY POLICIES

Debt-Equity Mechanism	The Asian Development Bank granted $10m to promote green energy solutions in households. The financing is to be channeled via microfinance institutions.
Energy Targets	The government is targeting 100MW of small hydro by 2020 and 20% of electricity generation from renewables by 2030.
Tax Incentives	All power projects get a two-to-five year profit tax holiday depending on the level of investment. All projects are laso exempt from VAT and customs duty on equipment.

Source: Bloomberg New Energy Finance Policy Library

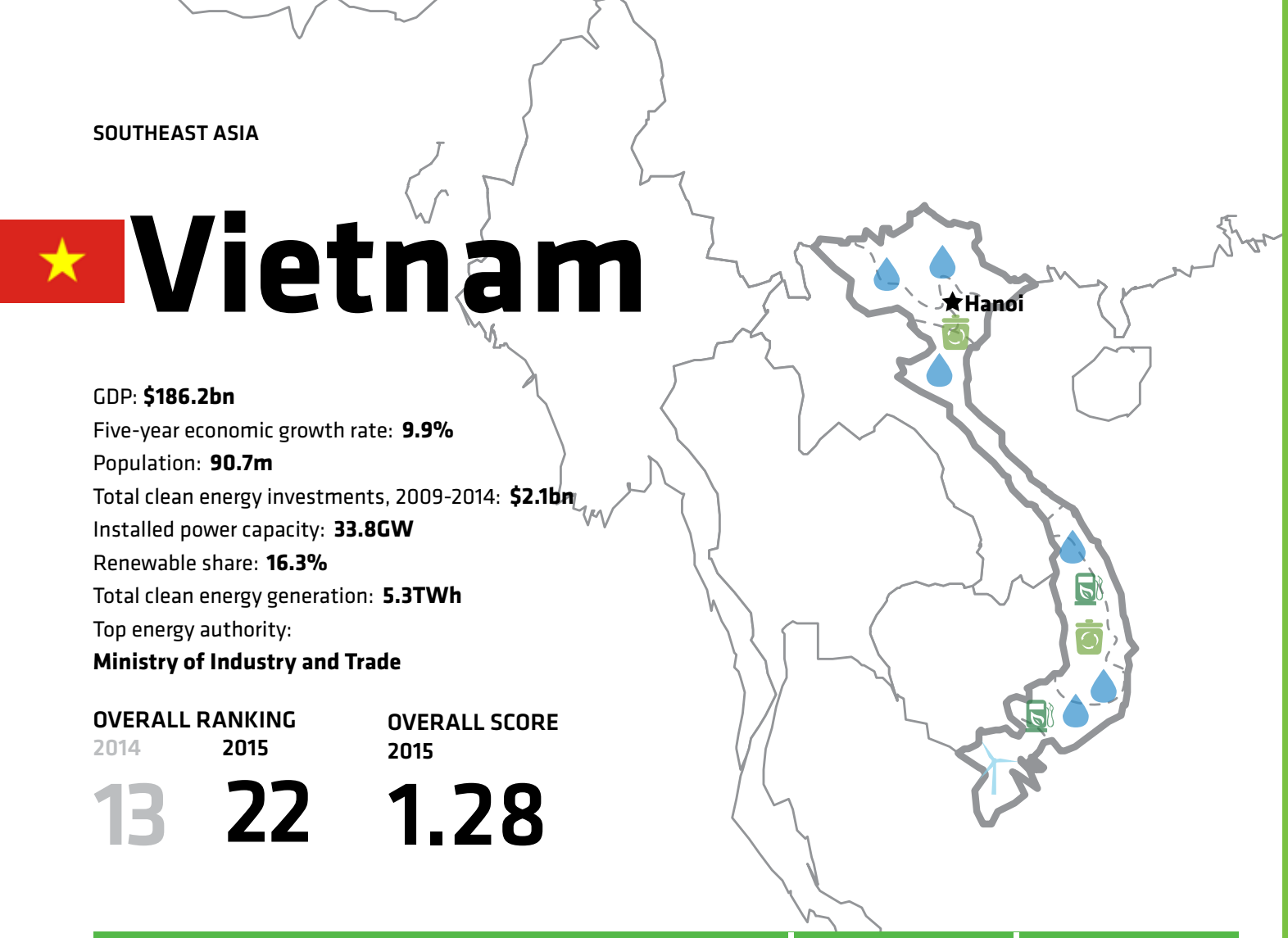
Tajikistan receives good sunshine but the cost of generating solar is far higher than the residential tariffs. The country has a lengthy system for permitting renewable energy projects which sometimes leads to ad-hoc changes in the requirements. Reforms are underway to simplify the process. Although the industrial tariffs are not as subsidized as the residential tariffs, all new projects wanting to sell power to the end-users and not to the BT, require government approval.

Tajikistan offers several tax incentives to promote renewable energy. In June 2013, as a part of the World Bank's Sustainable Energy for All initiative, Tajikistan set a renewable energy generation target of 20% by 2030. This included a target to add 70MW of small hydro during 2012–2016 and 100MW by 2020.

In January 2014, Asian Development Bank approved a $10m project to offer $8.8m in credit lines to various microfinance institutions (MFI). This will allow MFIs to provide credit, at competitive rates, for solar home solutions, energy efficient cookstoves and heat exchangers and home insulation.

SOUTHEAST ASIA

Vietnam



GDP: **$186.2bn**
Five-year economic growth rate: **9.9%**
Population: **90.7m**
Total clean energy investments, 2009-2014: **$2.1bn**
Installed power capacity: **33.8GW**
Renewable share: **16.3%**
Total clean energy generation: **5.3TWh**
Top energy authority:
Ministry of Industry and Trade

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
13	22	1.28

PARAMETER	RANKING	SCORE
I. Enabling Framework	35	1.05
II. Clean Energy Investment & Climate Financing	32	0.43
III. Low-Carbon Business & Clean Energy Value Chains	14	3.19
IV. Greenhouse Gas Management Activities	17	1.68

SCORE SUMMARY

Vietnam in 2015 scored 1.28 to finish 22th overall among *Climatescope* 2015 nations. Its ranking dropped nine places from 2014. This was largely due to a retreat on Parameter I.

Vietnam's 2015 score on Parameter I Enabling Framework was 1.05, compared with 1.33 in 2014. Although the country introduced feed-in tariffs to the biomass and waste-to-energy sector in 2014, its wind feed-in-tariff has been ineffective so far and an anticipated revision did not materialize.

On Parameter II Clean Energy Investment & Climate Financing, Vietnam's 2015 score was little changed from 2014 and its ranking improved one spot, to 32nd. The country's clean energy investment dropped to $67m most recently, less than half that of the previous year.

Vietnam improved its score on Parameter III Low-Carbon Business & Clean Energy Value Chains from 2.99 to 3.19, although it slipped one rank to 14th. Wind and solar equipment manufacturers have emerged in the country, while the number of clean energy service providers continues to grow.

On Parameter IV Greenhouse Gas Management Activities, Vietnam in 2015 surrendered four ranks to 17th place, with a 2015 score of 1.68 versus 2014's 2.00. The country backslid on the GHG Emissions Reduction Target Indicator.

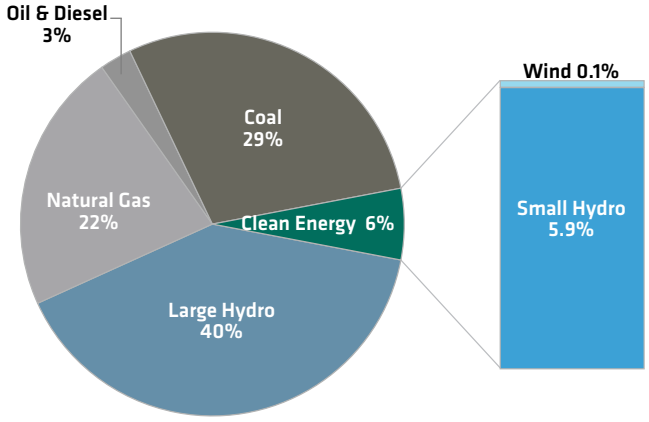
For further information, access www.global-climatescope.org/en/country/vietnam

OVERVIEW

Vietnam relies mostly on large hydropower and natural gas to meet its electricity needs, with the former accounting for 40% and the latter 30% of its total power generation of 148TWh.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

33.8GW total installed capacity



Source: Bloomberg New Energy Finance, Electricity Viet Nam, Electricity Regulatory Authority of Vietnam, Institute of Vietnam, Ministry of Industry and Trade, Ministry of Natural Resources and Environment.

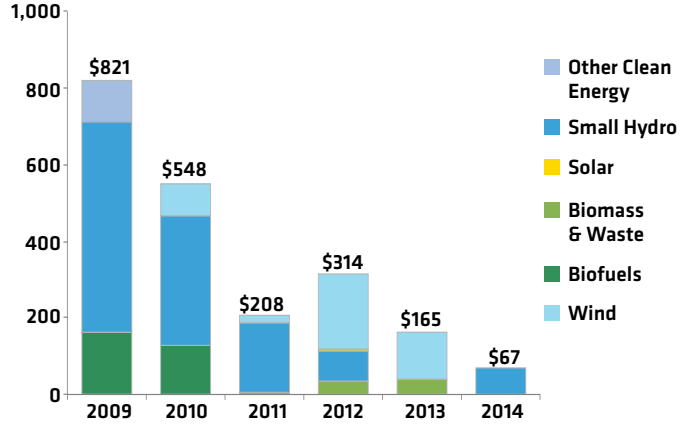
In its 'Power Master Plan 7' approved in June 2011, Vietnam targets an increase in generation of non-hydro renewable electricity from the present 3.5% to 4.5% in 2020 and 6% in 2030. The plan's installation target for wind is 1GW by 2020 and 6.2GW by 2030; for biomass it is 0.5GW by 2020 and 2GW by 2030.

To incentivize those two renewable technologies, feed-in tariffs (FiT) have been introduced. Early in 2011, a FiT of $0.087/kWh was introduced for wind energy. In 2014 the government extended FiTs to new waste-to-energy and biomass. For waste-to-energy projects using solid waste, a FiT as high as VND 2,114/kWh ($0.1/kWh) was offered. For biomass-fueled combined heat and power projects, the FiT provided was more modest at VND 1,220/kWh ($0.07/kWh). The government is considering a FiT for biogas.

A preferential taxation policy offers an income tax rate of 10% for 15 years to all renewable energy technologies, compared to the statutory rate of 25%. Alternatively, project developers can enjoy tax exemption for the first four years and a 50% reduction in tax payable for nine subsequent years. Depreciation on certain renewable energy assets is allowed 1.5 times faster than other property.

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

$2.1bn total cumulative investment



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

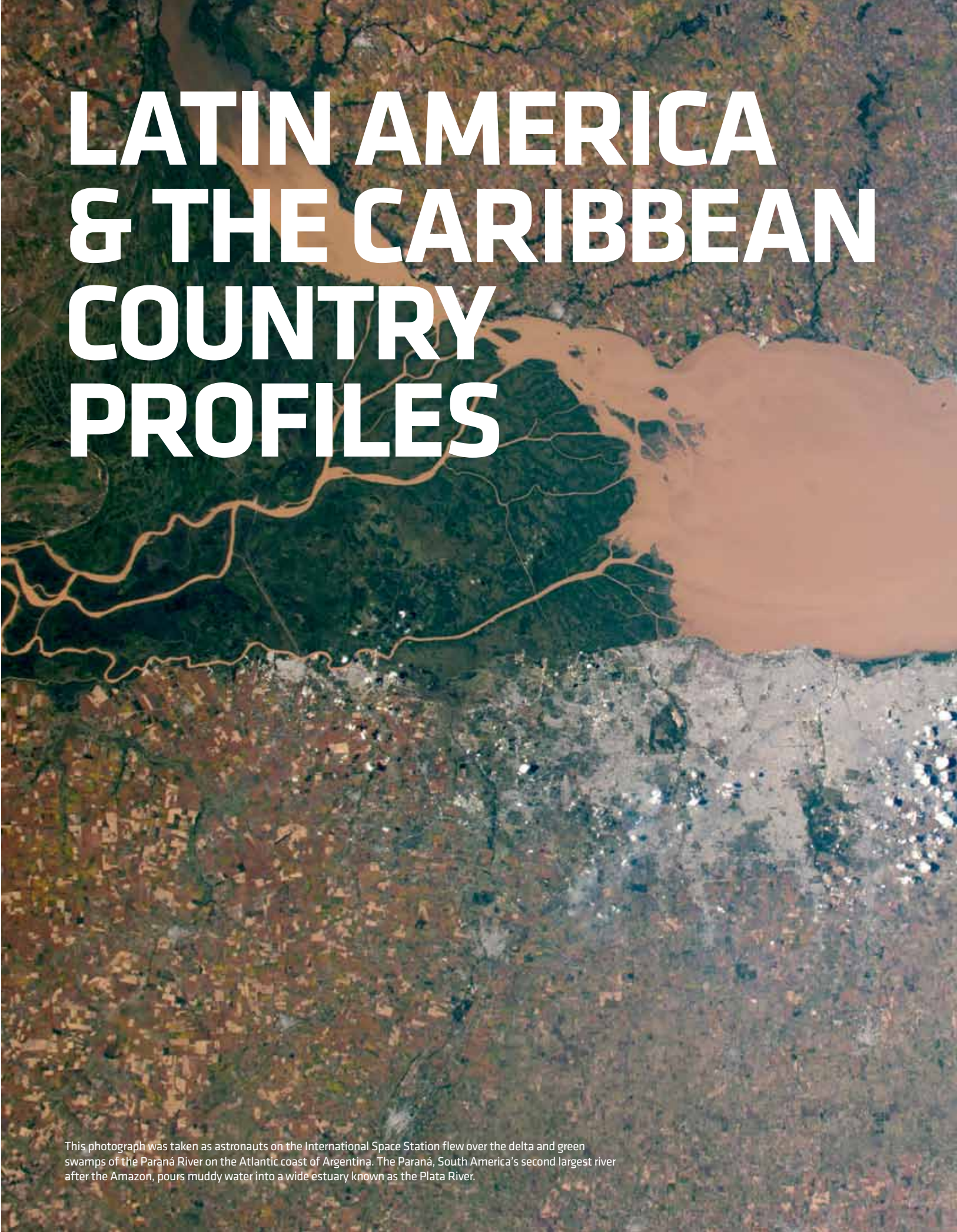
Vietnam's project development has been limited due to high project costs, steep financing rates and soft costs loaded on due to unclear project permit procedures. The government's intended revision of the wind FiT has not taken place after several years' consideration. As of 2014, only 54MW of wind power capacity had been commissioned, though there is a pipeline of 5GW awaiting policy improvements.

KEY POLICIES

Biofuel Blending Mandate	A mandate of 5 million tons of E5 (ethanol 5%) and B5 (bio-diesel 5%), satisfying 1% of its gasoline and oil (diesel, kerosene and other oil derivatives) demand by 2015.
Energy Targets	It is targeting 4.5% of electricity production from renewable energy by 2020 and 6% by 2030; 5.6% of installed capacity by 2020, and 9.4% by 2030.
Feed-in-Tariffs	Vietnam introduced waste-to-energy feed-in tariffs in May 2014: VND 2,114 ($0.1)/kWh for power projects using solid waste and VND 1,532 ($0.07)/kWh for landfill gas power projects.
Tax Incentives	These include accelerated depreciation in power generation, import duty exemption for CDM project-related goods, an incentive tax rate of 10% for 15 years, and tax reduction of 50% with a tax exemption of 4 years for new power projects; and tax incentives for biofuels.

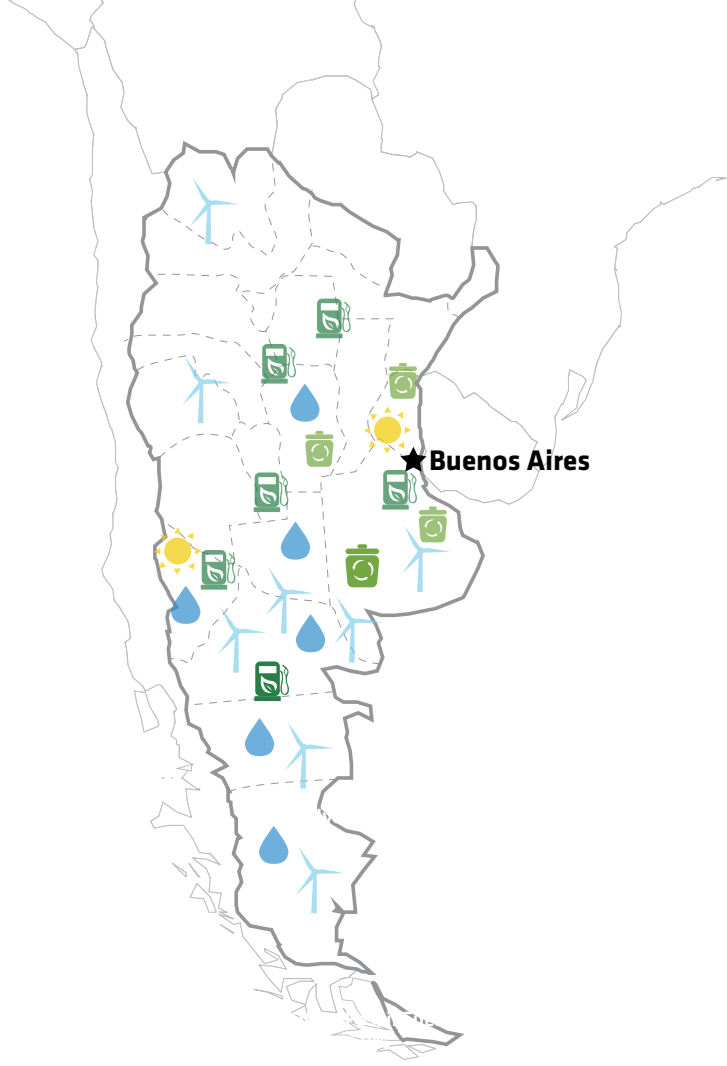
Source: Bloomberg New Energy Finance Policy Library

LATIN AMERICA & THE CARIBBEAN COUNTRY PROFILES



This photograph was taken as astronauts on the International Space Station flew over the delta and green swamps of the Paraná River on the Atlantic coast of Argentina. The Paraná, South America's second largest river after the Amazon, pours muddy water into a wide estuary known as the Plata River.

Argentina



GDP: **$540.2bn**
Five-year economic growth rate: **3.1%**
Population: **41.8m**
Total clean energy investments, 2009-2014: **$1.8bn**
Installed power capacity: **31.4GW**
Renewable share: **2.4%**
Total clean energy generation: **2.6TWh**
Top energy authority: **Ministry of Planning**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
20	20	1.39

PARAMETER	RANKING	SCORE
I. Enabling Framework	20	1.32 –
II. Clean Energy Investment & Climate Financing	47	0.21
III. Low-Carbon Business & Clean Energy Value Chains	10	3.55
IV. Greenhouse Gas Management Activities	13	1.77

SCORE SUMMARY

Argentina repeated its overall *Climatescope* ranking of 20th place in 2015, while its score increased slightly from 2014's 1.24 to a 1.39 in 2015.

Argentina's static results occurred in part because its notable improvement on Parameter I was blunted by a decline on Parameter II. On Enabling Framework Parameter I, Argentina moved up eight places in 2015 to 20th position. Its 2015 and 2014 Parameter I scores were 1.32 and 1.17, respectively.

On Clean Energy Investment and Climate Financing Parameter II, Argentina ranked 47th in 2015, down two places from 2014. Its Parameter II scores were 0.21 in 2015 and 0.30 in 2014.

Low-Carbon Business & Clean Energy Value Chains Parameter III was Argentina's best showing in *Climatescope*, at 10th place with a 3.55 score. It also represented a four-step improvement from 2014, when the country scored 2.83.

On Greenhouse Gas Management Activities Parameter IV, Argentina's 2015 rank was 13 with a 1.77 score versus its 2014 metrics of 16th place with a 1.73.

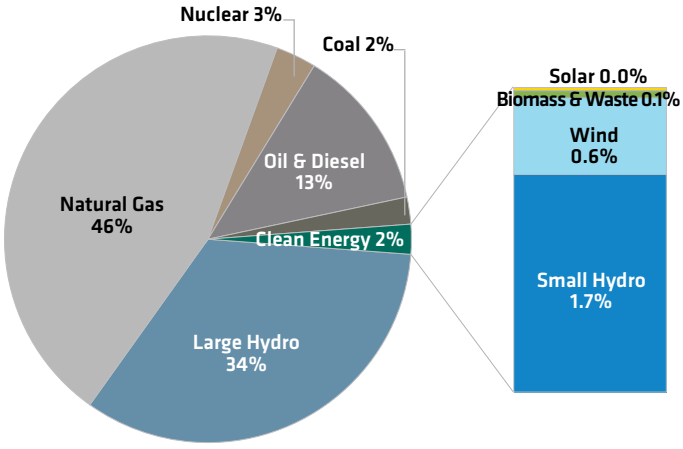
For further information, access www.global-climatescope.org/en/country/argentina

OVERVIEW

In 2014, non-large hydro renewables accounted for 2.6TWh of generation, roughly 2% of the 130TWh produced. Argentina's matrix is dominated by fossil-based plants, which corresponded to 64% of total power produced. Large hydro provided 30% and nuclear contributed to 4% of the electricity generated.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

31.4GW total installed capacity



Source: Bloomberg New Energy Finance, Comisión Nacional de Energía

Law 26.190, in force since 2006, has been the main policy supporting renewables and established the country's clean energy mandate which introduced a feed-in tariff scheme and tax incentives.

Recently a new law has been approved by Congress which modifies the existing regulation, introducing targets of 8% by 2017 and 20% by 2025, including tax incentives and the creation of a trust fund for the development of renewable energy which may help quick-start Argentina's clean energy market.

KEY POLICIES

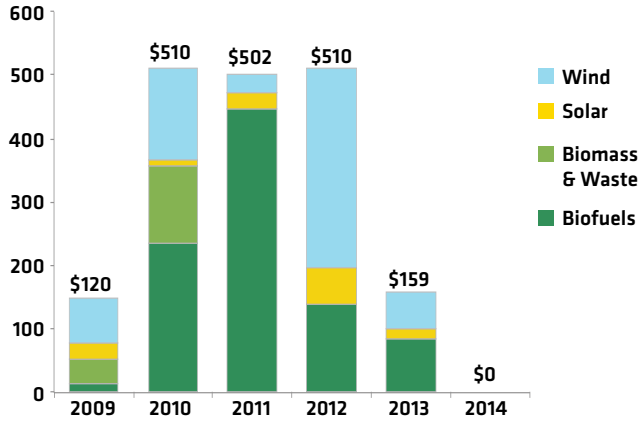
Energy Target	8% renewable electricity consumption by 2016.
Feed-in Tariff	FiT legislation approved in 2006, but has not been implemented.
Auction	GENREN held 1 auction, contracting 760MW of wind, 110MW of biomass, 20MW of solar PV and 10MW of small hydro plants.
Biofuels	10% biodiesel blend with conventional diesel and 5% ethanol blend with conventional gasoline.
Tax Incentives	VAT tax rebate and accelerated depreciation benefit.

Source: Bloomberg New Energy Finance

In 2009, Argentina contracted renewable capacity through its first and only federal level auction, GENREN. Energías Argentinas SA (ENARSA), a state-owned company active in the hydrocarbon and electricity segments, conducted the auction and the Ministry of Energy, Secretaria de Energía, established regulations. ENARSA awarded 15-year contracts to 895MW of wind, small hydro and solar projects. As of 2015, 217MW of solar and wind projects were either under construction or had been commissioned.

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

$1.8bn total cumulative investment



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

In the meantime, some provinces have also taken action. Santa Fe province opened a tender to contract a 1MW PV project in November 2014 and San Luis province approved a provincial law adding provincial tax breaks.

Argentina requires conventional diesel be blended with 10% biodiesel and gasoline be blended with 10% ethanol. Previously, Argentina exported most of its biodiesel production. In 2011, it exported 2bn litres out of the 2.9bn produced, mostly to European Union (EU) countries. In August 2012, the EU initiated an anti-dumping investigation on Argentine and Indonesian biodiesel, which resulted in a 10.6% anti-dumping duty implemented in May 2013. In order to support local production, Argentina increased its biodiesel blending mandate, mandate price and reduced export tax.

Bahamas

GDP: **$8.5bn**
Five-year economic growth rate: **1.5%**
Population: **0.4m**
Total clean energy investments, 2009-2014: **$0.0m**
Installed power capacity: **575.5MW**
Renewable share: **0.0%**
Total clean energy generation: **0.0GWh**
Top energy authority: **Ministry of Environment**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
52	53	0.48

PARAMETER	RANKING	SCORE
I. Enabling Framework	53	0.36
II. Clean Energy Investment & Climate Financing	23	0.60
III. Low-Carbon Business & Clean Energy Value Chains	50	0.64
IV. Greenhouse Gas Management Activities	49	0.42

SCORE SUMMARY

Bahamas moved one place lower to 53rd overall in *Climatescope* 2015, with score of 0.48. The country's 2014 score was 0.53.

The country's demotion in overall ranking can largely be traced to Enabling Framework Parameter I, in which it regressed on the Average Retail Electricity Prices indicator.

On Enabling Framework Parameter I, Bahamas in 2015 lost ground, with a 0.36 score and a parameter ranking of 53rd. In 2014, Bahamas scored 0.47 on the parameter, ranking 51st.

Bahamas in 2015 equaled its 23rd-place finish on Clean Energy Investment and Climate Financing Parameter II, with a 0.60 score. Its 2014 score was 0.64.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Bahamas in 2015 scored 0.64, ranking 50th. Its 2014 metrics were a 0.58 score and a rank of 52nd.

On Greenhouse Gas Management Activities Parameter IV, Bahamas in 2015 repeated its 49th-place ranking and its 0.42 score of the previous year.

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

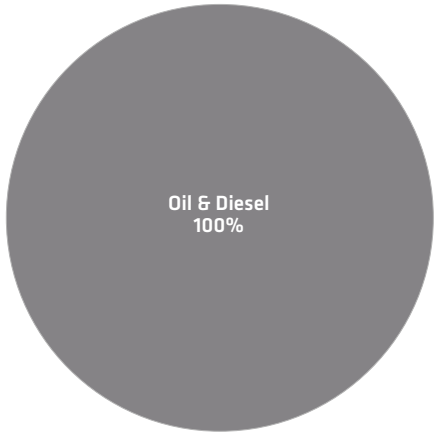
OVERVIEW

The island nation of the Bahamas' dependence on imported oil and diesel generation, along with its high electricity prices, highlight the need for renewable energy development to improve energy security and lower fuel costs. However, more local policy action will be required to spark any kind of local clean energy boom.

Currently, the country's electricity market is controlled by state-owned Bahamas Electricity Corporation (BEC), which owns 76% of the total 575MW of installed capacity and controls generation, transmission and distribution in the majority of the islands; and by the Grand Bahama Power Company (GBPC), a private company which owns the remaining installed capacity share and controls generation, transmission and distribution in the Grand Bahamas island. The national electricity is distributed along 16 isolated grids.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

575.5MW total installed capacity



Source: Bloomberg New Energy Finance

According to the Out Islands Electricity Act, private utilities are allowed to supply power to the Family Islands (outer islands) if it is in the nation's best interest, but the provision is ambiguous and open to wide interpretation. Furthermore, BEC is not required to buy electricity from independent power producers (IPP). Both make it challenging for newcomers to gain a local foothold in the market.

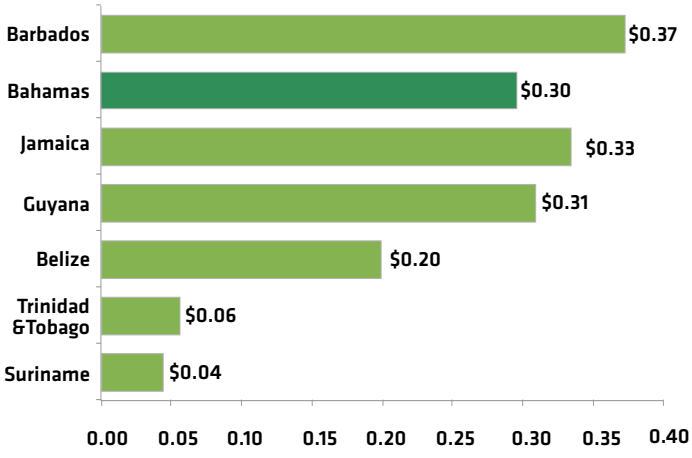
The Bahamas consist of over 700 islands. The capital, Nassau, is located on the island of New Providence, home to more than 60% of the country's 338,000 habitants. The second most populated island is Grand Bahamas, where 16% of the population live.

The national grid is 100% dependent on imported fossil fuels, which results in high electricity prices. In 2013, average retail electricity rates ($0.31/kWh) were 50% above the average price in the Caribbean region.

In 2013, the government launched the National Energy Policy 2013–2033, providing its vision and goals for a reformed, modern, diversified and efficient sector by 2033. The document covers four goals related to energy conservation and efficiency. One of its priority areas is the development of renewable sources with a target of 30% clean energy generation by 2030. Despite this publication, as of 2015, no compulsory legislation had been published to propel the country toward achieving these goals.

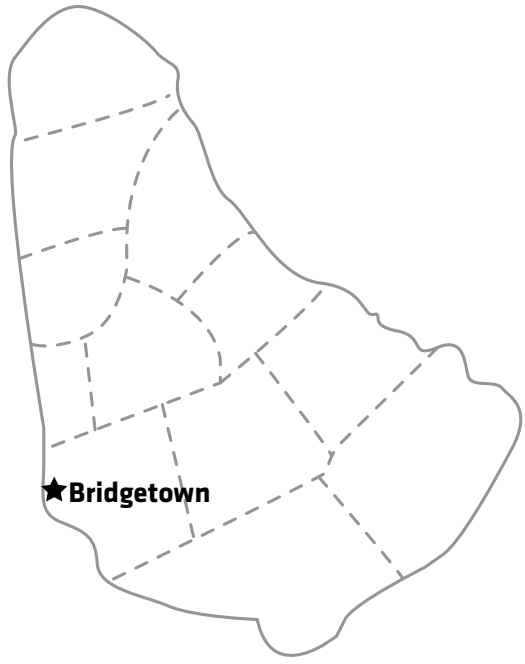
Finally, net metering and feed-in tariff policies have been discussed to support solar development. However, as of 2015, no new energy regulation had been released.

AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/kWh)



Source: Bloomberg New Energy Finance

Barbados



GDP: **$4.3bn**
Five-year economic growth rate: **-0.4%**
Population: **0.3m**
Total clean energy investments, 2009-2014: **$0.0m**
Installed power capacity: **239.1MW**
Renewable share: **0.0%**
Total clean energy generation: **0.0GWh**
Top energy authority:
Energy Division, Office of the Prime Minister

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
41	44	0.64

PARAMETER	RANKING	SCORE
I. Enabling Framework	46	0.74
II. Clean Energy Investment & Climate Financing	36	0.36
III. Low-Carbon Business & Clean Energy Value Chains	41	1.02
IV. Greenhouse Gas Management Activities	46	0.56

SCORE SUMMARY

Barbados moved three places lower to 44th place overall in *Climatescope* 2015, with an overall score of 0.64. Barbados's 2014 score was 0.79.

The country's overall 2015 finish was influenced most strongly by negative progress on two Parameter II indicators: Loans, Grants, Grant Programs and Clean Energy Investments.

On Enabling Framework Parameter I, Barbados lost two levels, arriving at 46th place with a score of 0.74. Its 2014 score was 0.76. Barbados in 2015 tumbled from 13th to 36th place on Clean Energy Investment and Climate Financing Parameter II. Its 2015 score of 0.36 contrasted with a 2014 rating of 0.88.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Barbados in 2015 scored 1.02, ranking 41st. Its 2014 metrics were a 0.88 score and a rank of 45th.

On Greenhouse Gas Management Activities Parameter IV, Barbados in 2015 repeated its 46th-place ranking and its 0.56 score of the previous year.

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

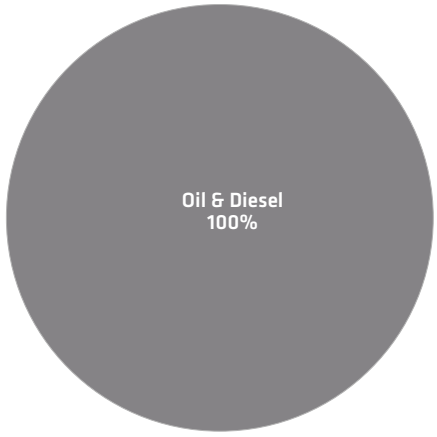
OVERVIEW

Barbados' power generation relies mainly on imported oil. Although Barbados produces some oil, domestic demand greatly exceeds local supply. This dependency impacts the Barbadian economy at the macroeconomic level and at the consumer level. In 2012, Barbados committed to increasing the share of renewables in its energy mix to 29% of all electricity consumption. Barbados has started to move in the direction of a sustainable power matrix.

Barbados' electricity market is managed by the Barbados Light & Power Company (BLPC), a private vertically-integrated utility. The BLPC is responsible for generation, transmission and distribution of electricity. The Fair Trading Commission regulates electricity rates and service standards in the island.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

239.1MW total installed capacity



Source: Bloomberg New Energy Finance, Barbados Light & Power Company

In 2014, Barbados' matrix totalled 239MW of installed capacity, powered entirely by oil and diesel fuel. While electricity demand was expected to grow by an average of 1.2% per year, the existing plant is aging and 104MW of installed capacity is scheduled for retirement over the next four years. A fuel clause adjustment (FCA) is included in the retail electricity prices, which allows both reductions and increases in fuel costs to be passed along to consumers.

KEY POLICIES

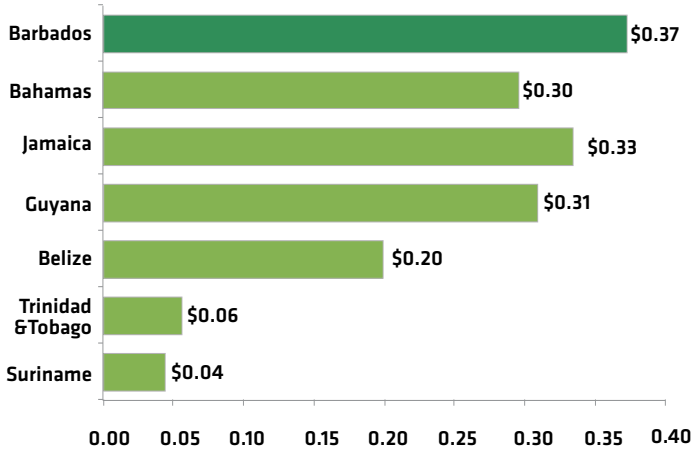
Energy Target	29% of electricity consumption from renewable sources by 2029
Net Metering	Renewable Energy Rider program, where customers may generate renewable electricity and sell excess to the national utility

Source: Bloomberg New Energy Finance Policy Library

Net metering has been allowed in Barbados since 2010 and consumers with wind and/or solar self-generation facilities may supply energy to the national grid via the Renewable Energy Rider program. In February 2015, the program limit was raised from 5MW to 20MW. Currently more than 2 MW of solar distributed generation has been installed on roof tops of Barbadian residences and businesses.

In 2014, BLPC announced a bid process for contractors to design and build an 8MW PV plant in St. Lucy district, which will be owned and operated by BLPC and is expected to be commissioned by March 2016. Additionally, the government is currently preparing a Nationally Appropriate Mitigation Actions (NAMA) document that consolidates the island's efforts to reduce CO2 emissions by 2020.

AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/kWh)



Source: Bloomberg New Energy Finance

CENTRAL AMERICA

Belize

GDP: **$1.6bn**
Five-year economic growth rate: **3.8%**
Population: **0.3m**
Total clean energy investments, 2009-2014: **$0.0m**
Installed power capacity: **154.8MW**
Renewable share: **55.7%**
Total clean energy generation: **316.2GWh**
Top energy authority:
Ministry of Energy, Science & Technologies and Public Utilities

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
32	38	0.81

PARAMETER	RANKING	SCORE
I. Enabling Framework	27	1.21
II. Clean Energy Investment & Climate Financing	44	0.26
III. Low-Carbon Business & Clean Energy Value Chains	52	0.46
IV. Greenhouse Gas Management Activities	26	1.22

SCORE SUMMARY

Belize moved six places lower to 38th place overall in *Climatescope* 2015, with score of 0.81. Belize's 2014 score was 0.98.

The country's overall rating suffered from reduced activity on the Loans, Grants, Grant Programs Indicator of Parameter II. On Enabling Framework Parameter I, Belize in 2015 lost nine places, arriving at rank 27 with a score of 1.21. Its 2014 score was 1.31.

Belize in 2015 slumped to 44th place from 19th placed in 2014 on Clean Energy Investment and Climate Financing Parameter II. Its 2015 score of 0.26 contrasted with a 2014 rating of 0.67.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Belize in 2015 scored 0.46, ranking 52nd. Its 2014 metrics were a 0.63 score and a rank of 50th.

On Greenhouse Gas Management Activities Parameter IV, Belize in 2015 gained one rank, scoring 1.22. In 2014 it was 27th on the parameter, with a 1.05 score.

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

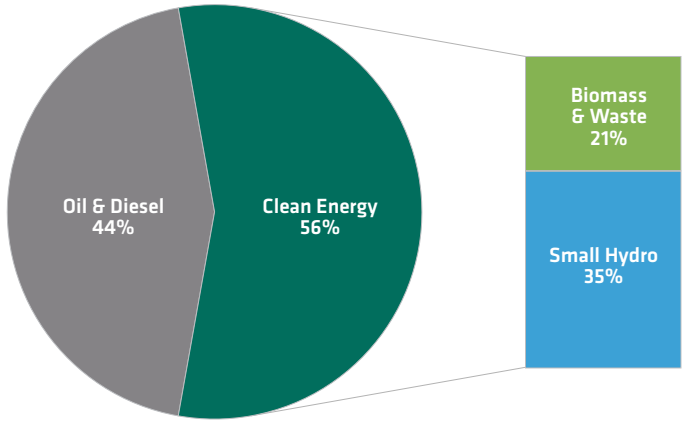
OVERVIEW

Belize's electricity market is controlled by Belize Electricity Limited (BEL), the sole transmission and distribution company in the country. In 2013, most of the total 308GWh was generated by independent power producers (IPPs) and sold to BEL.

In 2013, oil and diesel accounted for 68.5MW of total capacity, followed by small hydro (54.5MW), biomass and waste (31.5MW) and solar (0.5MW). The national electricity grid is connected to Mexico's. BEL's supply from Mexico national utility CFE is constrained by a 60MW maximum transfer capacity of the 115kv transmission line linking the two national systems. Moreover, BEL is currently unable to take more than 50MW of power from Mexico without experiencing voltage regulation problems.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

155MW total installed capacity



Source: Bloomberg New Energy Finance, Barbados Light & Power Company

In 2011, the government released the National Energy Policy (NEP), which sets goals of fostering sustainable production and distribution of energy; minimizing the cost of energy in the local economy; mitigating the impacts of external shocks; and creating a national culture of energy efficiency.

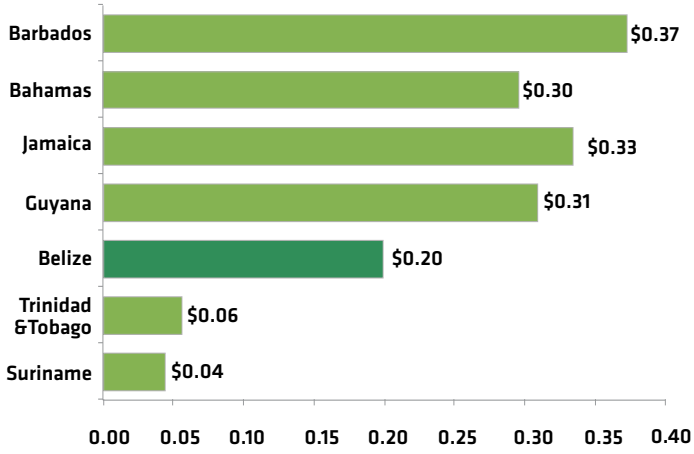
KEY POLICIES

Auction	The Public Utilities Commission held an auction to contract 15MW of solar and wind power. Fifty-four entities were eligible, but no winners have been announced yet.

Source: Bloomberg New Energy Finance Policy Library

A year later, the 2012–2017 National Strategic Plan created a framework to transition Belize to a low-carbon economy and presented the National Sustainable Energy Strategy (NSES) 2012-2033. The NSES sets targets, which includes the reduction of the country's dependence on imported fuels by 50% by 2020, from 1m barrels to 0.5m barrels by increasing the production of renewable energy and improving the energy efficiency.

AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/kWh)

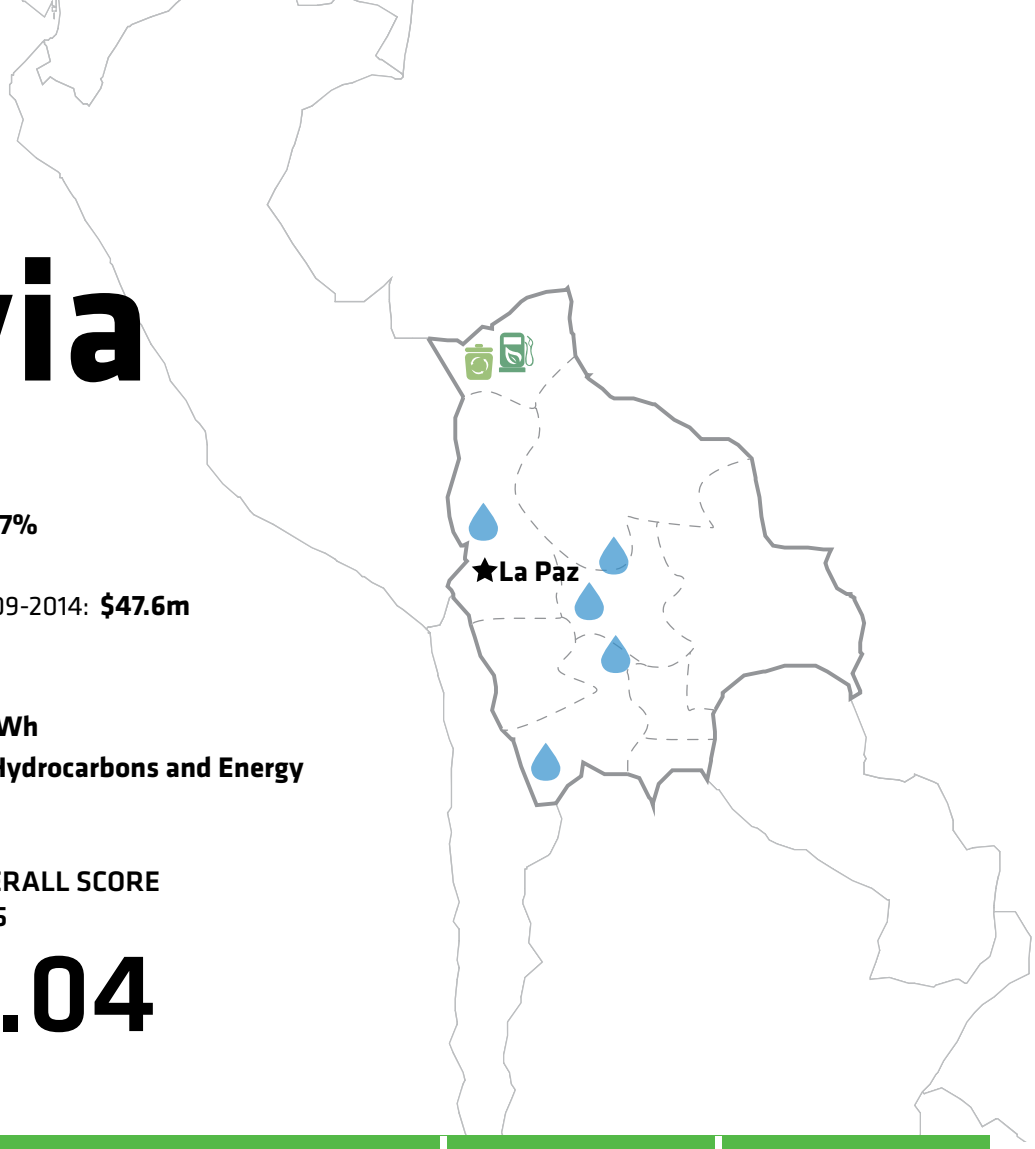


Source: Bloomberg New Energy Finance

The country held its first tender in 2013, which aimed to contract 75MW of power, of which 60MW was destined for competitive bidders across all energy sources, and 15MW was reserved exclusively for solar and wind. In June 2014, PUC received 22 bid submissions, but only 20 were approved to the next step. Among them, there were hydro, biomass, wind and solar projects, as well as fossil fuel proposals.

SOUTH AMERICA

Bolivia



GDP: **$34.2bn**
Five-year economic growth rate: **11.7%**
Population: **10.8m**
Total clean energy investments, 2009-2014: **$47.6m**
Installed power capacity: **2.1GW**
Renewable share: **15.7%**
Total clean energy generation: **1.3TWh**
Top energy authority: **Ministry of Hydrocarbons and Energy**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
36	29	1.04

PARAMETER	RANKING	SCORE
I. Enabling Framework	48	0.61
II. Clean Energy Investment & Climate Financing	02	1.73
III. Low-Carbon Business & Clean Energy Value Chains	51	0.64
IV. Greenhouse Gas Management Activities	27	1.21

SCORE SUMMARY

Bolivia scored 1.04 in *Climatescope* 2015, 29th among countries overall. It gained seven places from 2014's overall country rankings by advancing from seventh to second place on Clean Energy Investment and Climate Financing Parameter II, in which it performed especially well on the Growth Rate of Clean Energy Investments indicator.

On Enabling Framework Parameter I, Bolivia ranked 48th, unchanged from 2014, with a score of 0.61. It registered a particularly good performance on the Clean Energy Rural Electrification indicator.

On Clean Energy Investment and Climate Financing Parameter II, Bolivia rated second overall with a score of 1.73, up from 1.10 in 2014, when it finished seventh.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Bolivia ranked 51st in 2015 with a score of 0.64, down three positions from 2014.

On Greenhouse Gas Management Activities Parameter IV, Bolivia's 2015 ranking of 27th was four spots below 2014's, with scores of 1.21 in 2015 and 1.33 the previous year.

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

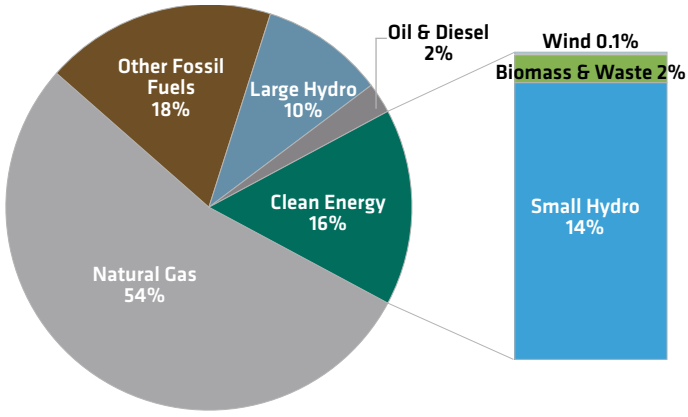
OVERVIEW

Renewables represent a significant portion of Bolivia's 2GW generation base, where 16% of the installed capacity comes from biomass, small hydro and wind. In 2014, the country published Decree 2048 to encourage clean energy development. That year, the country's first wind farm was commissioned, a 3MW plant located in the department of Cochabamba. Additionally, a 5MW PV plant located in the Amazonia isolated system was financed and has begun construction.

As a natural gas producer, Bolivia has a major reliance on that fuel for power generation. In 2014, 58% of the 8.4TWh generated came from gas plants. According to Yacimientos Petrolíferos Fiscales Bolivianos (YPFB), Bolivia's oil & gas company, the country exported the bulk of its gas production in 2014 to Argentina and Brazil. Additionally, the price of natural gas for power plants has been fixed since 2001 at well below international prices. Such low prices make it difficult for renewable projects to compete.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.1GW total installed capacity



Source: Bloomberg New Energy Finance, Autoridad de Fiscalización y Control Social de Electricidad

The country's power sector is mostly served by state-owned company Empresa Nacional de Electricidad (ENDE). Through its 11 subsidiaries, ENDE is responsible for most of generation, transmission and distribution in the system. Electricity prices have increased in recent years, although rates remain low compared to other countries in Latin America. In 2014, Bolivia's average retail electricity price was $0.11/kWh.

Bolivia has a low electrification rate compared to other Latin America countries. Around 87% of Bolivians have access to the grid, with higher penetration in urban areas (around 97%, versus around 67% in rural areas). The rate is expected to rise due to the government's "Electricidad para Vivir con Dignidad" (Electricity for Life with Dignity) program, which focuses on extending the grid and installing solar photovoltaic systems, wind systems and hybrid systems in low-income municipalities across the country.

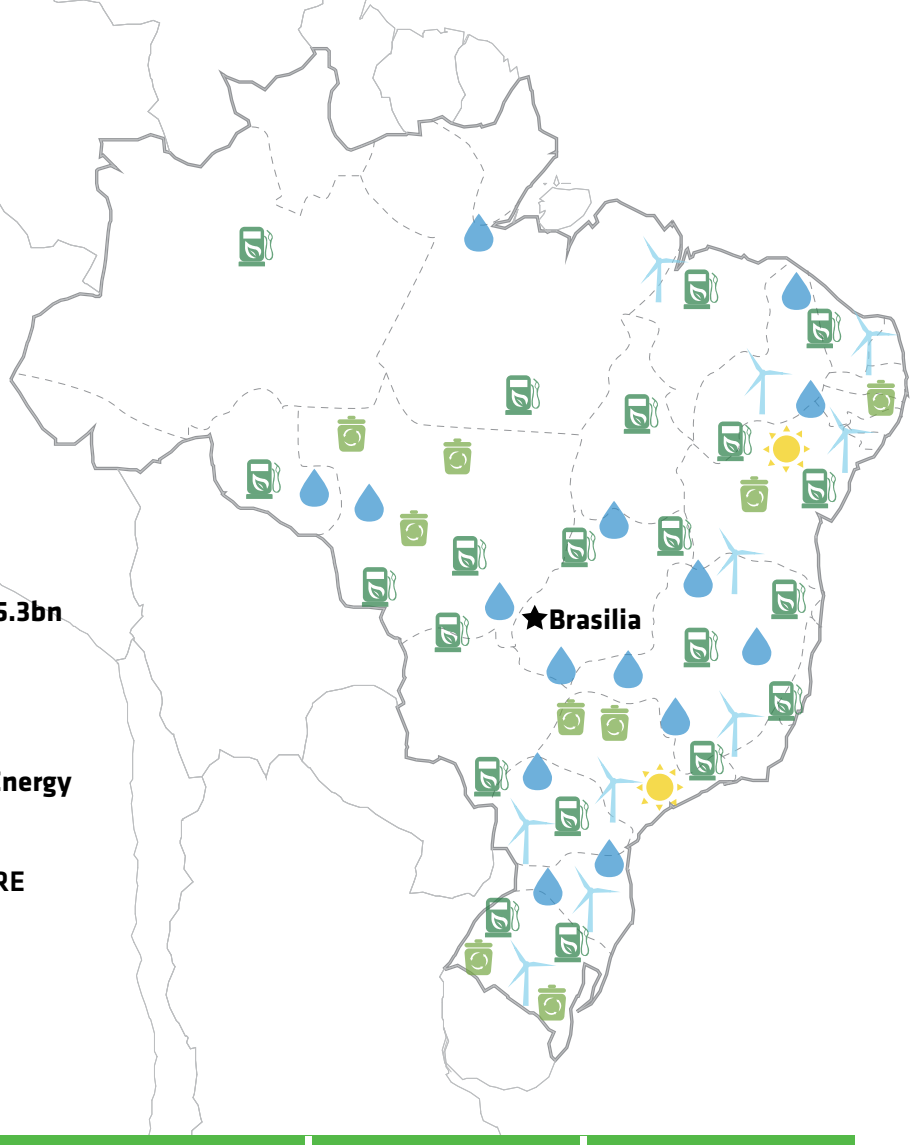
GREEN MICROFINANCE HIGHLIGHTS

Summary Green MFI Survey 2014	
Green Microfinance Institutions / Total MFIs	4/38
Green Microborrowers	1,371
Total Amount of Green Microloans Disbursed	$13.6m
Average Cost of Green Microloans	15.5%
Average of Loans Portfolio	1-2%

Source: Bloomberg New Energy Finance
Note: Figures based on survey conducted by BNEF from March to June 2014, with a total of 1067 microfinance institutions based in LAC.

SOUTH AMERICA

Brazil



GDP: **$2,346bn**

Five-year economic growth rate: **1.2%**

Population: **202m**

Total clean energy investments, 2009-2014: **$75.3bn**

Installed power capacity: **138.4GW**

Renewable share: **17.6%**

Total clean energy generation: **87.3TWh**

Top energy authority: **Ministry of Mines and Energy**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
2	2	2.12

PARAMETER	RANKING	SCORE
I. Enabling Framework	03	1.98
II. Clean Energy Investment & Climate Financing	17	0.69
III. Low-Carbon Business & Clean Energy Value Chains	02	4.35
IV. Greenhouse Gas Management Activities	02	3.13

SCORE SUMMARY

Brazil in 2015 once again scored second-place overall in Global *Climatescope* and was tops among all Americas nations in the survey. Brazil's overall 2015 score of 2.12 compares with its 2014 score of 2.17.

Brazil maintained its second-place finish despite falling from first to third on Parameter I. It showed notable improvement on the Growth Rate of Clean Energy Investments indicator of Parameter II.

On Enabling Framework Parameter I, Brazil's two-position slide was quantified by a 1.98 2015 score versus 2.14 in 2014.

On Clean Energy Investment and Climate Financing Parameter II, Brazil advanced 10 levels in 2015 to 17th. Its Parameter II scores were 0.69 in 2015 and 0.57 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Brazil in 2015 matched its second-place finish of 2014. Its scores were 4.35 and 4.41 in 2015 and 2014, respectively.

The Americas standard-bearer also stayed even with its second-position finish on Greenhouse Gas Management Activities Parameter IV. Its 2015 score of 3.13 was little changed from 2014's 3.24.

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

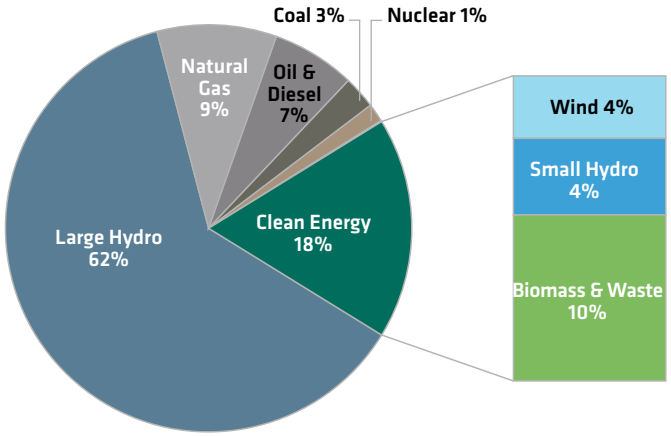
OVERVIEW

BRAZIL COUNTRY PROFILE

Brazil is the largest economy in Latin America with a GDP of $1.73bn in 2014, and as a result, the largest power market in the region, with a total installed capacity of 139GW. The country's sheer size, natural resources and conducive policies for clean energy have made Brazil the main renewable energy market in Latin America and one of the top 10 in the world. In the country, wind projects have reached grid-parity with conventional sources and have become one of the main sources of new capacity. Brazil is also the second largest ethanol producer worldwide, although the sector has struggled in past years due to gasoline price controls and weak crops.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

138.4GW total installed capacity



Source: Bloomberg New Energy Finance, Agência Nacional de Energia Elétrica
Note: Negligible values for solar and other fossil fuels cannot be graphically represented due to scale, see source data for the complete numbers.

KEY POLICIES

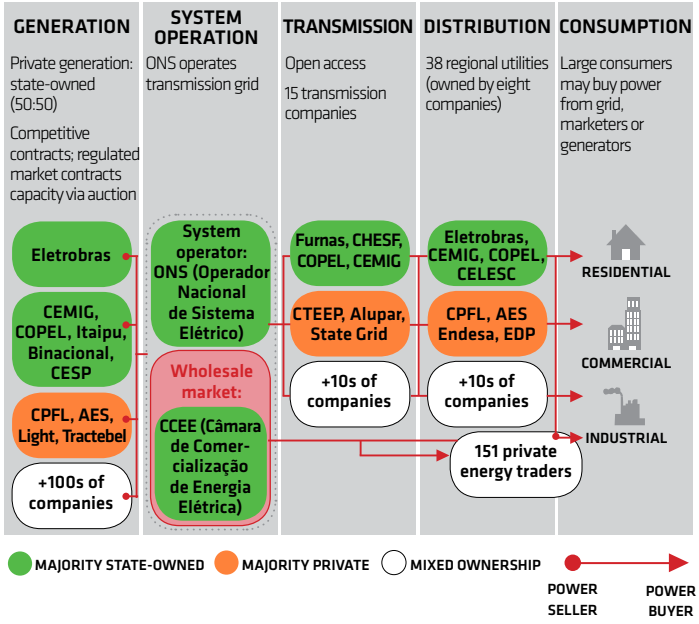
Feed-in Tariff	The government's PROINFA program guaranteed power prices at above-average market rates for 3GW of biomass & waste, small hydro and wind in 135 projects. It ended in 2011.
Auction	There have been 18 tenders in which renewables have competed, contracting a total of almost 17GW in the form of biomass (4.1GW), small hydro (0.7GW) and wind (12GW).
Biofuels	A mandate to blend 5% biodiesel with diesel and 27.5% ethanol with gasoline.
Debt/Equity Incentives	BNDES, the national development bank, offers credit lines for renewable energy, energy efficiency and ethanol projects.
Tax Incentives	These include a 2-year exemption for renewable energy from social contributions (PIS/COFINS tax) and exemption for large infrastructure projects through REIDI program.
Utility Regulation	A fee discount for renewable energy transmission and distribution.
Net Metering	Legislation for a net metering program has been approved, but deployment has been slow.

Fuente: Bloomberg New Energy Finance

As the country battles through a macroeconomic crisis, the clean energy sector has started to feel the impact, especially in 2015 – demand for clean energy projects will continue to be strong, but costs have increased and financing a project is more difficult.

POWER SECTOR STRUCTURE

Regulator: ANEEL (Agência Nacional de Energia Elétrica)



Source: Bloomberg New Energy Finance

A DROUGHT TO FORCE DIVERSIFICATION

Brazil's matrix is very much reliant on hydropower. In the past five years, roughly 75-80% of the country's generation came from hydro plants. The overreliance on one source, albeit renewable, came at a high cost for the country in the last year. A prolonged drought put Brazil's water supply and energy matrix into stress, exposing the market to costly generation from fossil-fueled thermal plants. In the regulated market, utilities struggled to meet power demand and accumulated losses that were later passed to consumers in the form of higher electricity bills. In the wholesale market, where the impact of the energy crisis was felt more immediately, prices increased, and average spot prices in 2014 reached BRL 642/MWh ($273/MWh), up 146% compared to the average in 2013.

Two lessons came out from the hydro crisis: the need for diversification and the importance of distributed generation. Auctions and net metering will continue to be crucial policies to develop Brazil's power sector. Further incentives to encourage small-scale renewable systems are expected, as high costs and access to finance continue to prevent mass-deployment of PV systems in Brazil, in spite of higher electricity prices.

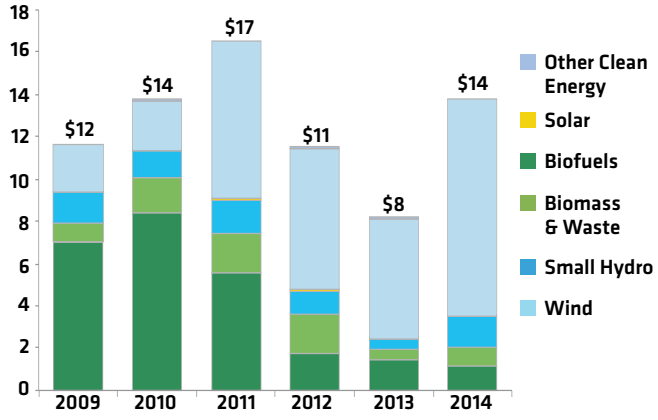
A RENEWABLE MATRIX

While the overall energy grid struggled, Brazil's clean energy sector thrived. 2014 was a record year for renewable energy installations and contracts, and levels of investment bounced back compared to 2013. In 2014, a total of 5.2GW of new clean energy (excluding large hydro) capacity came online. Out of this, 2.9GW came from wind projects, including 1GW of projects that were delayed due to transmission issues.

By the end of 2014, a total of 18% of Brazil's installed capacity came from clean energy. Wind had a total of 5GW installed and biomass and small hydro followed with 13.2GW and 6.1GW respectively. When adding large hydro to the mix, 80% of the country's matrix came from renewables.

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

$75.3bn total cumulative investment



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

Given the drought, and the necessity to add new capacity to the country's matrix, the government contracted a total of 4GW of biomass, solar, small hydro and wind projects through auctions. This was particularly important for the solar sector, which was included for the first time in the country's federal-level tenders, taking 1GW of contracts in 2014, at average prices of $87/MWh, at the time of the auction. The recent devaluation of the Brazilian real has pushed down this price to $56/MWh as of October 2015, putting these among some of the cheapest contracts for solar power in the world.

As the second largest ethanol producer worldwide, the country has established an ethanol blending mandate of 27.5% to mix the fuel from sugar cane with gasoline. It also includes a 7% mandatory blend of biodiesel with diesel. Brazil's biofuel market has struggled in the past years, and will be difficult to relive the glory that it experienced in the early 2000s.

INVESTMENT SCENARIO

After low investment levels in 2013, when the country only attracted $3.1bn of asset finance for new renewable energy projects, a total of $6.4bn in equivalent investment was committed in Brazil in 2014. The bulk of it went again to wind projects, $5bn. Brazil's national development bank, Banco Nacional de Desenvolvimento Econômico e Social (BNDES) continues to be the main source of financing the country. New financing structures have started to emerge, forced by Brazil's overall macroeconomic crisis and opportunities in the clean energy space. Debentures, a type of bond, have been more commonly

LEAGUE TABLE

2014 Total Investments	$13,811m

Top Three Lead Debt Arrangers 2014 ($m)

1st	Banco Nacional de Desenvolvimento Economico e Social	$3,174m
2nd	SBanco Bradesco SA	$290m
3rd	WB Group	$200m

Top Three Equity Sponsors 2014 ($m)

1st	Cia Paranaense de Energia	$1,168m
2nd	Renova Energia SA	$879m
3rd	Centrais Eletricas Brasilerias SA	$538m

Top Three Asset Finance Deals, 2014 ($m)

Rank	Sector	Project	Developer	Value
1st		Renova Energia BNDES Wind Portfolio	Renova	$607m
2nd		Energisa Wind Portfolio Brookfield Acquisition	Energisa	$346m
3rd		Casa dos Ventos Santa Brigida Wind Portfolio	Casa dos Ventos	$331m

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

included into clean energy project financings. The yieldco phenomenon has also reached the country, through acquisitions in early 2015. However, opportunities for financing from foreign banks continues to be limited, as contracts firmed in local currency and the real devaluation do not favor loans in dollars.

CLEAN ENERGY MANUFACTURING

Overall, Brazil has a wide manufacturing capacity for clean energy sources, with the exception of geothermal. Brazil's industrial policy and local-content rules have driven the manufacturing build up of the wind sector in the country. Today, it counts seven wind turbine manufacturers producing locally from towers to blades. The sector struggled in 2014 with a shortage of equipment, as local producers of secondary components such as bearings did not keep pace with demand. Moving forward, Brazil is applying a local content road map for solar equipment, which aims to have in-country cell manufacturing by 2020.

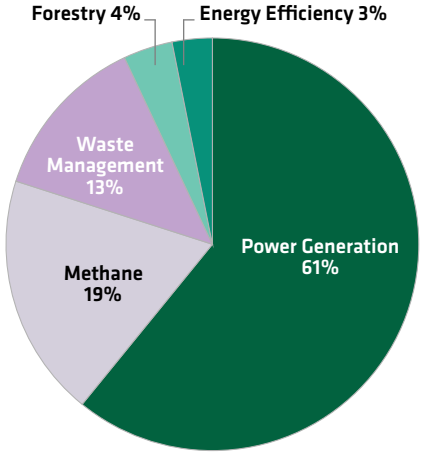
FINANCIAL INSTITUTIONS IN CLEAN ENERGY

✓	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

414 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**

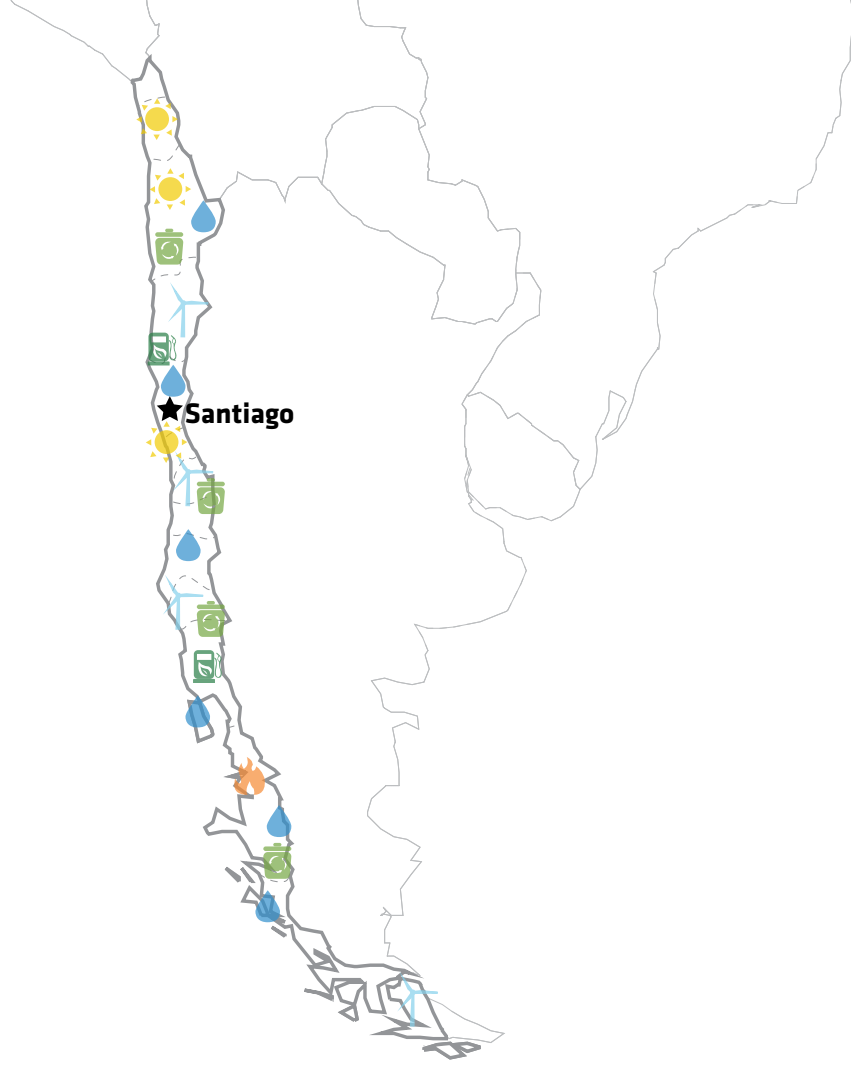
Source: Bloomberg New Energy Finance
Note: Uncolored icons, on the left, refer to each sub-sector of a complete value chain for a given sector, spelled out on the right. Colored icons represent the number of available subsectors for a given clean energy sector value chain. Bold text, on the right, illustrates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

CARBON POLICY

Given the development level of Brazil's economy and the wide number of multinational corporations operating there, the country hosts at least 100 companies that have adopted either energy efficiency or emission reduction measures. It also added 14 carbon offset projects, taking its total to 423, the majority of which are in the power sector. As Brazil prepares itself for the COP meeting this year in Paris, the government has announced a target of 37% CO_2 emissions reductions by 2025.

SOUTH AMERICA

Chile



GDP: **$258.1bn**
Five-year economic growth rate: **3.5%**
Population: **17.8m**
Total clean energy investments, 2009-2014: **$8.5bn**
Installed power capacity: **19.2GW**
Renewable share: **13.1%**
Total clean energy generation: **8.3TWh**
Top energy authority: **Ministry of Energy**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
5	3	1.97

PARAMETER	RANKING	SCORE
I. Enabling Framework	04	1.81
II. Clean Energy Investment & Climate Financing	08	0.93
III. Low-Carbon Business & Clean Energy Value Chains	11	3.38
IV. Greenhouse Gas Management Activities	03	3.05

SCORE SUMMARY

Chile's 1.97 overall score in *Climatescope* 2015 placed it third among all countries, up from fifth position in 2014, when it scored 1.79. The country's ascent was powered by significant gains on both Enabling Framework Parameter I and Clean Energy Investment and Climate Financing Parameter II. Chile's strength in the heavily weighted clean energy policies and power sector structures indicators of Parameter I were instrumental, as was its performance on the Parameter II categories of cost of debt and amount invested.

On Enabling Framework Parameter I, Chile finished fourth, up nine levels from 2014, with a score of 1.81. Its 2014 score was 1.38.

On Clean Energy Investment and Climate Financing Parameter II, Chile scored 0.93, up from 0.79 in 2014. Its Parameter II ranking was eighth in 2015 versus 17th in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Chile's 11th-place finish in 2015 equaled its 2014 position. The country's 2015 and 2014 Parameter III scores were 3.38 and 3.18, respectively.

On Greenhouse Gas Management Activities Parameter IV, Chile relinquished its first-place finish of 2014, falling to third position. Its 2015 and 2014 Parameter IV scores were 3.05 and 3.48, respectively.

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

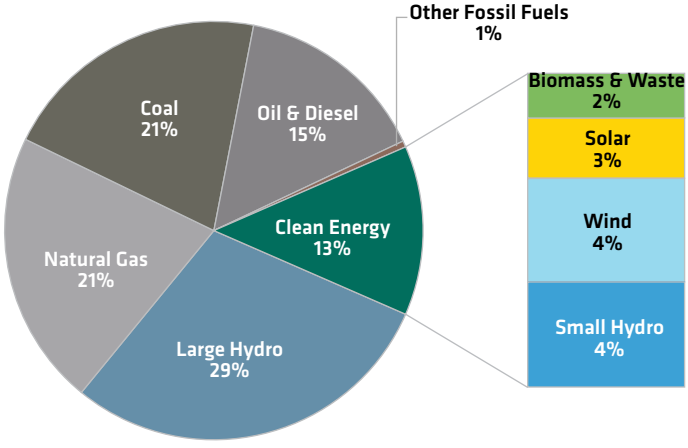
OVERVIEW

Chile was one of the first nations in Latin America to set long-range targets for clean generating capacity – today, the mandate stands at 20% of renewable energy generation by 2025. However, given the fast recent development of wind and solar projects in the country, Chile is likely to achieve its target much earlier than 2025.

The Chilean electricity market is divided into four segments: Central Interconnected System (SIC), Norte Grande Interconnected System (SING), Aysén and Magallanes. Chile is the world's largest copper exporter, and mining operations are geographically located in the northern part of the country, mostly serviced by the SING system. Although most of the mining's electricity demand occurs in the SING area, two thirds of the country's total installed generating capacity (19GW) is located in the SIC system.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

19.2GW total installed capacity



Source: Bloomberg New Energy Finance, Comisión Nacional de Energía

In 2014, Chile generated 12% of a total of 69TWh from renewable sources (biomass and waste, solar, wind and small hydro). Large hydro accounted for 28% and natural gas, coal, oil and diesel accounted for the rest.

The country is the leader in Latin America in solar installations – as of the first half of 2015, 0.5GW was already installed in the country. Most of this development has been propelled by merchant projects – PV plants developed to sell electricity in the spot market. However, a recent fall of prices in the wholesale market has made developers shift to new alternatives.

KEY POLICIES

Energy Target	20% electricity generation from renewable sources by 2025.
Tax Incentives	Renewable generators receive a reduction on transmission tariffs.
Net Metering	Net metering legislation approved.

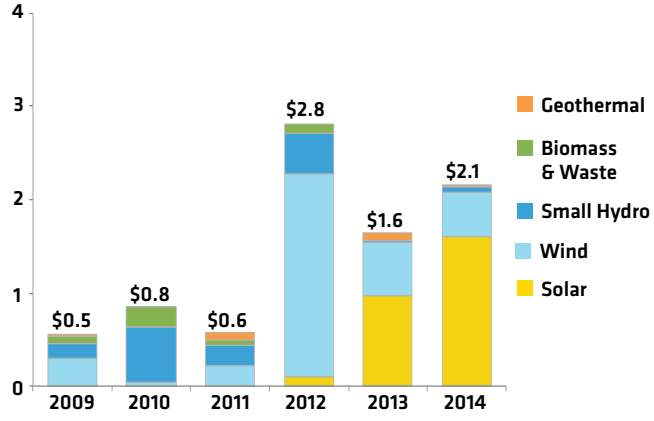
Source: Bloomberg New Energy Finance Policy Library

Chile's 20% renewables mandate by 2025 sets progressive interim yearly targets. It also indicates that auctions can be used as tool to help achieve the country's goals.

In order to improve the competitiveness of renewable projects in the auctions, in September 2014 the government approved a resolution that created three supply time blocks: 11pm-8am; 8am-6pm; 6pm-11pm. Generators bid to supply electricity during a certain time block.

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

$8.5bn total cumulative investment

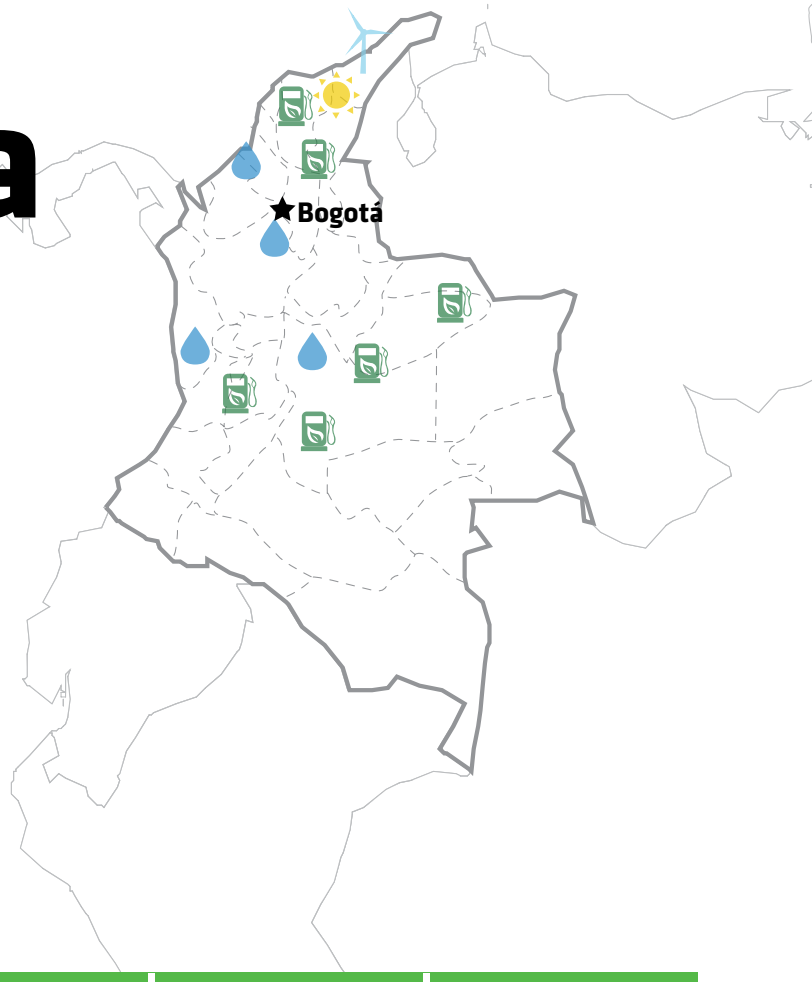


Source: Bloomberg New Energy Finance
Notes: Total investments includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

In 2014, a net metering regulation was published. Under the regulation, retail electricity consumers who have renewable energy or cogeneration installations smaller than 100kW will be able to connect to the national grid, deliver surplus generation and obtain credit for electricity delivered.

SOUTH AMERICA

Colombia



GDP: **$377.7bn**

Five-year economic growth rate: **5.6%**

Population: **48.9m**

Total clean energy investments, 2009-2014: **$401.4m**

Installed power capacity: **15.5GW**

Renewable share: **4.5%**

Total clean energy generation: **3.1TWh**

Top energy authority: **Ministry of Energy and Mines**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
16	19	1.39

PARAMETER	RANKING	SCORE
I. Enabling Framework	26	1.23
II. Clean Energy Investment & Climate Financing	28	0.48
III. Low-Carbon Business & Clean Energy Value Chains	22	2.05
IV. Greenhouse Gas Management Activities	05	2.97

SCORE SUMMARY

Colombia's overall rank in *Climatescope* 2015 was 19th, compared with its 16th-place 2014 position. Its quantitative ratings were little changed: 1.39 in 2015 versus 1.33 in 2014.

Colombia's regression occurred despite a notable improvement in the Growth Rate of Installed Capacity Indicator of Parameter I. Colombia also recorded a positive Growth Rate of Power Demand Indicator in Parameter I in 2015.

On Enabling Framework Parameter I, Colombia in 2015 registered a 12-place improvement to 26th place. Its 2015 Parameter I score of 1.23 compares with a 2014 score of 0.98.

On Clean Energy Investment and Climate Financing Parameter II, Colombia surrendered seven positions to 28th. Its Parameter II scores were 0.48 in 2015 and 0.66 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Colombia in 2015 bettered its 2014 ratings by climbing two positions in 2015 to 22nd place at 2.05 from 1.99.

Colombia stayed even with its fifth-place finish on Greenhouse Gas Management Activities Parameter IV. Its 2015 score of 2.97 was not significantly changed from 2014's 2.95.

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

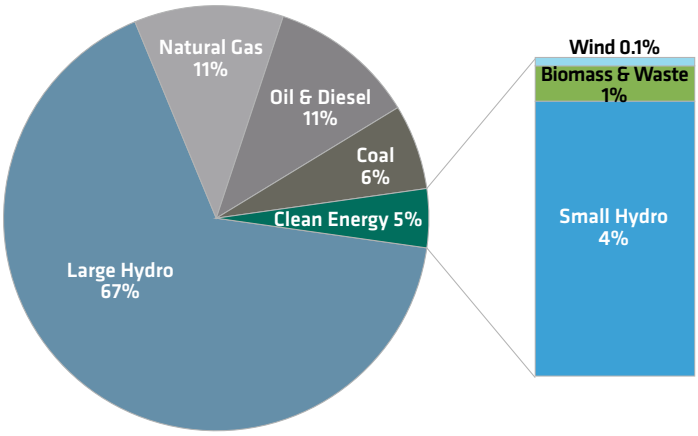
OVERVIEW

Given its heavy reliance on large, hydroelectric power generating plants, Colombia to date has offered relatively weak policy support to other forms of low or zero-carbon energy. The introduction of a renewable energy and energy efficiency law in 2014 may mark a turning point, as the industry awaits further regulation and incentives.

Previously, the country set a target of 6.5% on-grid and 30% off-grid non large hydro renewable power consumption by 2020. In addition, Colombia enforces blending mandates of 10% biodiesel with conventional diesel and 10% ethanol with conventional gasoline.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

15.5GW total installed capacity



Source: Bloomberg New Energy Finance, XM Compañía de Expertos en Mercados

As of 2014, Colombia had a total installed capacity of 15.5GW. In that year, large hydro represented 65% of the 64TWh generated, with natural gas as the second most important source, with 29% of generation. Clean energy accounted for 6% of generation, mostly coming from small hydro, and to a lesser degree from biomass and wind.

KEY POLICIES

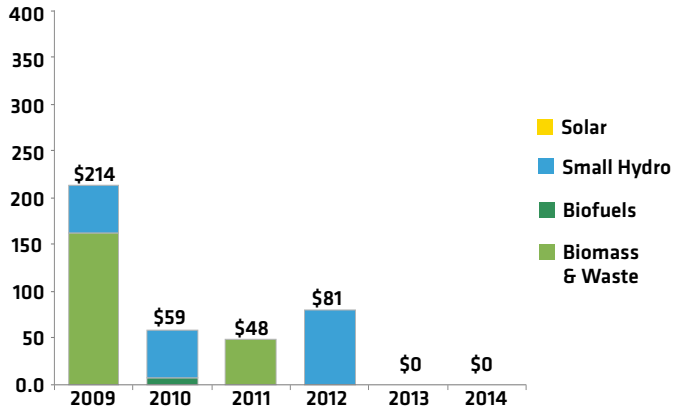
Energy Target	3.5% of on-grid and 20% off-grid generation from renewable sources by 2015.
Biofuels	10% biodiesel blend with conventional diesel and 10% ethanol blend with conventional gasoline.
Tax Incentives	Income tax exemption for wind and biomass generators and import duties exemption on equipment for activities that generate carbon credits.

Source: Bloomberg New Energy Finance Policy Library

Published in October 2001, Law 697 established Colombia's clean energy mandate, with distinct targets for on-grid and off-grid generation. The interim for 2015 was set at 3.5% on-grid and 20% off-grid renewable generation and both were surpassed by 2012. The longer-term 2020 goals also look to be easily achieved. Law 1715 approved in 2014 marks a new direction for the country and future regulation should open up new possibilities for renewable generation in Colombia.

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

$401.4m total cumulative investment

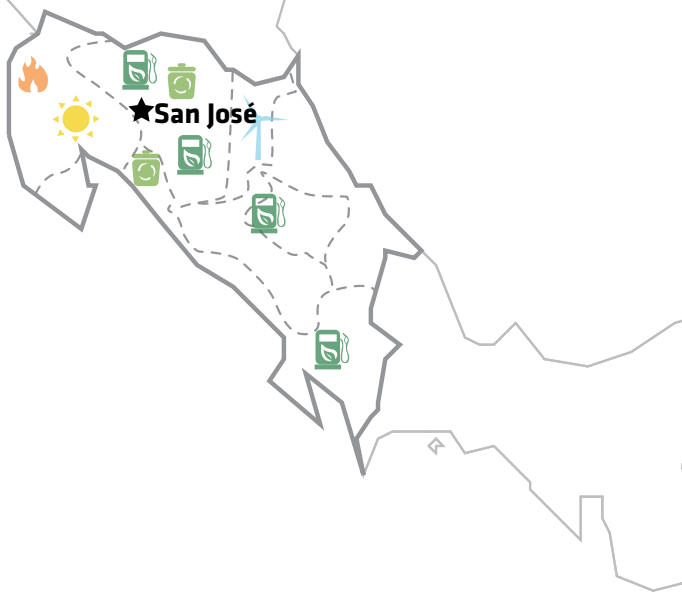


Source: Bloomberg New Energy Finance
Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

Under a December 2002 law, biomass and wind energy generators with projects registered under the UN's Clean Development Mechanism (CDM) may receive income tax and import duties exemption. Meanwhile, a May 2014 law regulates the integration of clean energy technologies on-grid and off-grid and set tax incentives for clean energy generation. It also created a fund for clean energy and energy efficiency to finance programs.

On transportation, since 2010, Colombia has set a 10% biodiesel and ethanol blending mandate with conventional diesel and gasoline, respectively.

Costa Rica



GDP: **$49.6bn**

Five-year economic growth rate: **6.4%**

Population: **4.9m**

Total clean energy investments, 2009-2014: **$1.5bn**

Installed power capacity: **2.8GW**

Renewable share: **34.9%**

Total clean energy generation: **4.6TWh**

Top energy authority:

Ministry of Environment, Energy and Telecommunications

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
12	15	1.49

PARAMETER	RANKING	SCORE
I. Enabling Framework	10	1.52
II. Clean Energy Investment & Climate Financing	14	0.79
III. Low-Carbon Business & Clean Energy Value Chains	24	1.92
IV. Greenhouse Gas Management Activities	11	2.41

SCORE SUMMARY

Costa Rica's overall rank in *Climatescope* 2015 fell to 15th from 12th-place in 2014. Its small regression came despite a slight increase in its overall score from 1.45 to 1.49, as other countries registered more substantial improvements.

The Central American nation saw notable improvement on the Clean Energy Policies Indicator of Parameter I.

On Enabling Framework Parameter I, Costa Rica in 2015 jumped 12 places to 10th position. Its 2015 Parameter I score of 1.52 compares with a 2014 score of 1.25.

On Clean Energy Investment and Climate Financing Parameter II, Costa Rica surrendered six positions to 14th. Its Parameter II scores were 0.79 in 2015 and 1.05 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Costa Rica in 2015 attained the 24th position with a 1.92 score. Its comparable 2014 metrics were 26th position and 1.79.

Costa Rica repeated its 2.41 score on Greenhouse Gas Management Activities Parameter IV. However, it slipped one place in rank on that Parameter to 11th place.

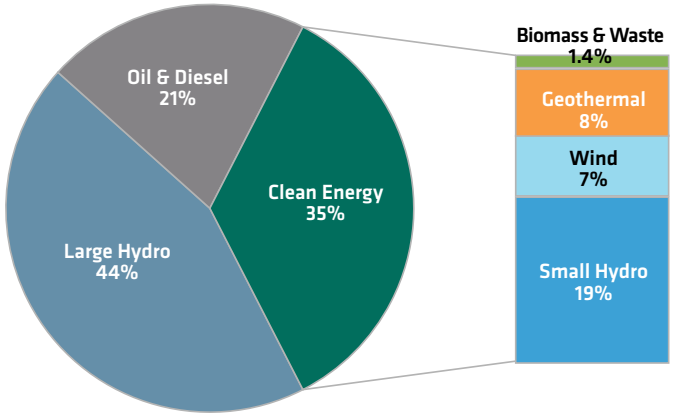
For further information, access www.global-climatescope.org/en/country/costa-rica

OVERVIEW

Costa Rica has committed itself to become the world's first truly carbon-neutral economy by 2021, with renewable energy playing an important role in pursuing that goal. The country aims to have a 100% renewable energy (including large hydro) matrix by 2030. Already, large hydro is the main source of generation in the country, accounting for 44% of the 10.2TWh generated in 2014.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.8GW total installed capacity



Source: Bloomberg New Energy Finance, Instituto Costarricense de Electricidad
Note: Negligible values for solar cannot be graphically represented due to scale, see source data for the complete numbers.

Costa Rica's electricity market is controlled by state-owned Instituto Costarricense de Electricidad (ICE), a vertically-integrated utility also involved in telecommunications. The Costa Rican market includes private players, in the form of cooperatives and independent power producers selling electricity to ICE.

KEY POLICIES

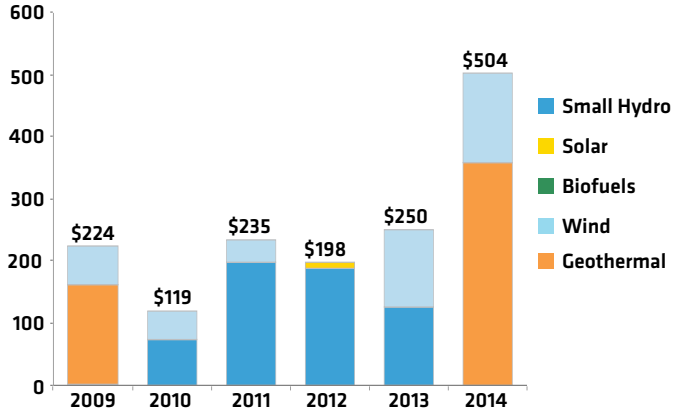
Auction	The Costa Rican Institute of Electricity ran an auction exclusively for renewable sources, contracting 38MW of small hydro and 100MW of wind.
Tax Incentives	There are import, VAT and income tax exemptions for equipment used in the renewable energy industry.
Net Metering	A 5-year pilot net metering program has 117 clients connecting renewable facilities to the grid.

Source: Bloomberg New Energy Finance Policy Library

Costa Rica is part of the Central American Regional Market (Mercado Eléctrico Regional, MER), which interconnects seven countries in the region. Due to severe droughts since the first half of 2013, Costa Rica has relied on the regional market to help meet its domestic electricity needs. In 2014, Costa Rica imported 251GWh from the Central American Regional Market, 18% of all the imports that year.

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

$1.5bn total cumulative investment



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

However, in 2015, the country was able to meet most of its power demand needs with renewable resources, thanks to the hydro and wind plants installed in Costa Rica.

Costa Rica also offers import, value added and income tax breaks on select renewable energy materials and equipment. In addition, ICE periodically holds tenders to contract new clean energy capacity. A five-year net metering pilot program was in place in Costa Rica until February 2015. The project was cancelled when the capacity limit of 10MW was achieved, but consumers that had already joined the program will remain connected for 15 years. In March 2015, ARESEP, Costa Rica's regulatory utility agency, was analyzing the net metering regulation, and may announce a further policy update soon.

Dominican Republic

GDP: **$64bn**

Five-year economic growth rate: **3.8%**

Population: **10.5m**

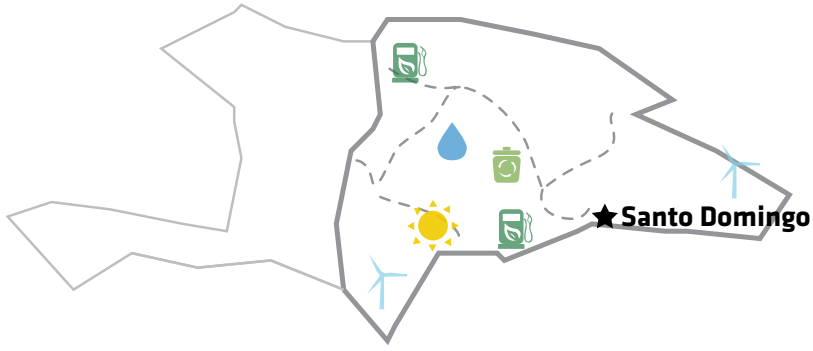
Total clean energy investments, 2009-2014: **$331.5m**

Installed power capacity: **3.7GW**

Renewable share: **6.9%**

Total clean energy generation: **795.1GWh**

Top energy authority: **National Energy Commission**



OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
24	32	1.02

PARAMETER	RANKING	SCORE
I. Enabling Framework	24	1.26
II. Clean Energy Investment & Climate Financing	42	0.26
III. Low-Carbon Business & Clean Energy Value Chains	48	0.71
IV. Greenhouse Gas Management Activities	12	2.20

SCORE SUMMARY

The Dominican Republic's 1.02 overall score in *Climatescope* 2015 placed it 32nd among all countries. In 2014, the country was ranked 24th overall, with a score of 1.16.

The country's de-rating from 2014 to 2015 is explained mostly by a 19-position decline in its ranking on Enabling Framework Parameter I. It received lower scores in 2015 on the Parameter I indicators Clean Energy Policies, Clean Energy Installed Capacity and Growth Rate of Electricity Generation.

On Enabling Framework Parameter I, the Dominican Republic finished 24th in 2015, with a score of 1.26. It was fifth in 2014 on that parameter, scoring 1.54.

On Clean Energy Investment and Climate Financing Parameter II, the Dominican Republic ranked 42nd, up from 43rd the previous year.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, the Dominican Republic's 48th-place finish in 2015 lagged its 2014 rank of 43. The country's 2015 and 2014 Parameter III scores were 0.89 and 0.71, respectively.

On Greenhouse Gas Management Activities Parameter IV, the Dominican Republic's 2015 ranking of 12th was the same as its 2014 ranking. Its Parameter IV scores were 2.12 in 2014 and 2.20 in 2015.

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

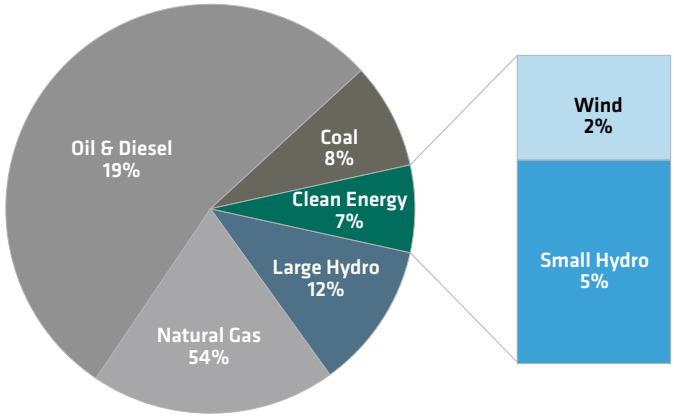
OVERVIEW

The Dominican Republic has set an ambitious target to get 10% of electricity generation from renewable sources by 2015, raising it to 25% by 2020. As of 2014, only 10.5% of a total 15TWh was coming from clean energy generation.

The Ministry of Energy and Mines was created at the end of 2014 and is now in charge of developing energy policies, while the Superintendencia de Electridicad (SIE) regulates and oversees Dominican Republic's electricity sector. The state-owned Empresa de Transmisión Eléctrica Dominicana (ETED) is the sole transmission company in the country and it is responsible for operating the national system.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

3.7GW total installed capacity



Source: Bloomberg New Energy Finance, Superintendencia de Electricidad de la Republica Dominicana
Note: Negligible values for solar cannot be graphically represented due to scale, see source data for the complete numbers.

KEY POLICIES

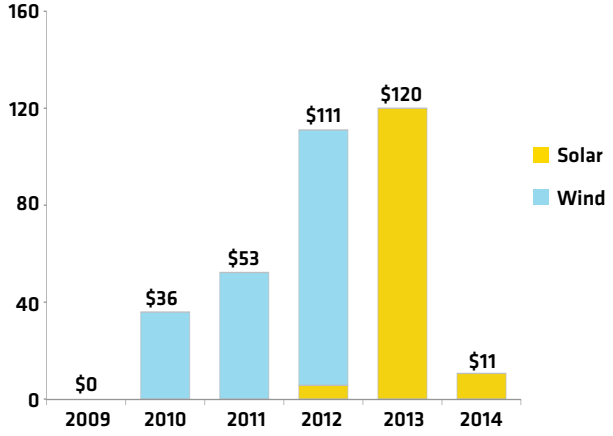
Energy Target	10% electricity generation from renewable sources by 2015 and 25% by 2020.
Feed-in Tariff	FiT legislation approved in 2007, but has not been implemented
Debt/Equity Incentives	Clean energy fund created from tax revenue from fossil fuel consumption. It aims to promote investments in renewable energy and energy efficient projects.
Tax Incentives	Clean energy investment tax credit, corporate, income, ITBIS, and import tax exemption, external financing tax reduction.
Utility Regulation	Renewable generators dispatch priority and open access to transmission and distribution.
Net Metering	Net Metering program with 59 customers connecting renewable facilities to the grid.

Source: Bloomberg New Energy Finance Policy Library

Although generation is open to private players, there is still a strong presence of the state-owned company. The distribution segment is divided into three public companies: EDEESTE, EDENORTE and EDESUR. All the state-owned companies are managed by the Corporación Dominicana de Empresas Eléctricas Estatales (CDEEE).

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

$331.5m total cumulative investment

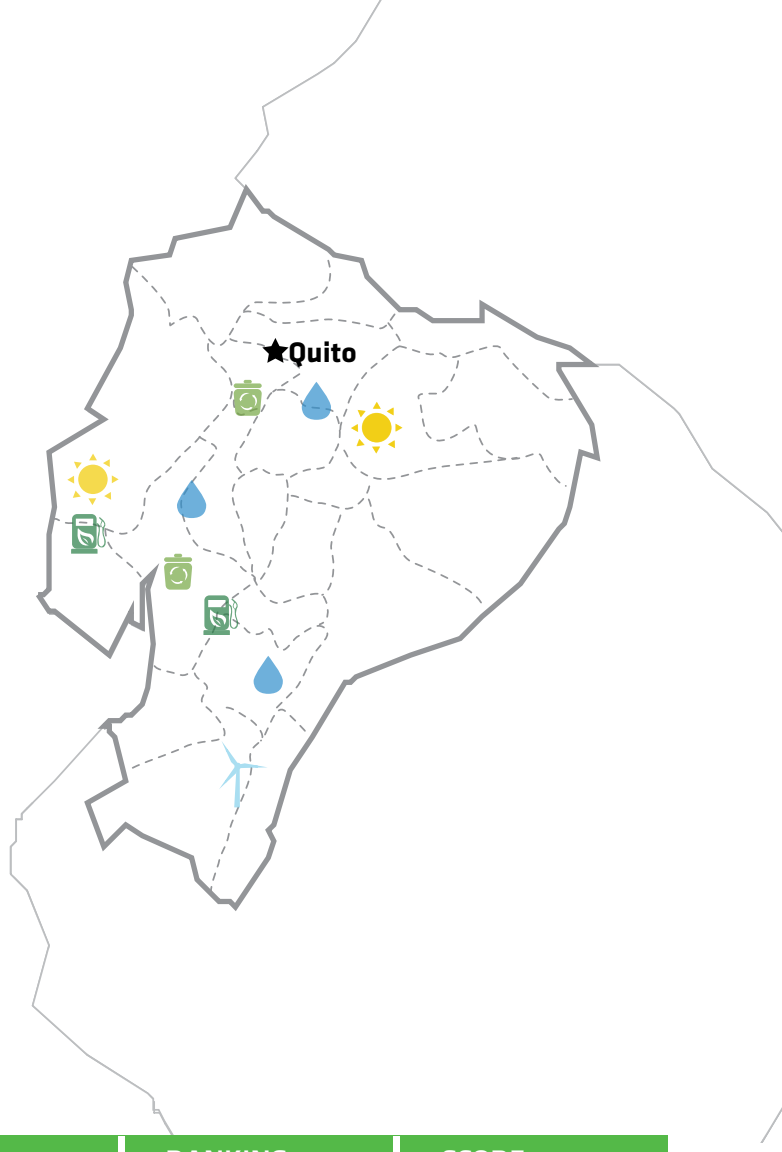


Source: Bloomberg New Energy Finance
Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

In 2014, the Dominican Republic had a total installed capacity of 3.7GW. The bulk of was represented by oil and diesel (2.1GW), natural gas (600MW) and coal (314MW). Large hydro represents 435MW, small hydro 171MW, wind 85MW and solar 1.5MW. A 60MW PV plant is under construction in the municipality of Monte Plata. The first phase of the project (30MW) is expected to be commissioned by the end of 2015 and the second phase (30MW) by the first half of 2016.

Energy regulation for renewable power dates back from the mid-2000s. In 2004, the government published the Plan Energético Nacional (PEN), which defines energy policies in the country until 2015. In May 2007, following the guidelines of PEN, the government established an incentive regime for the development of clean energy sources in Dominican Republic based on mechanisms including an investment tax credit; corporate and income tax exemption; external financing tax reductions; exemption from tax on transfer of industrialized goods and services; and import duty exemption.

Ecuador



GDP: **$100.5bn**

Five-year economic growth rate: **7.6%**

Population: **16m**

Total clean energy investments, 2009-2014: **$331.2m**

Installed power capacity: **5.4GW**

Renewable share: **10.7%**

Total clean energy generation: **2.5TWh**

Top energy authority:

Ministry of Electricity and Renewable Energy

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
33	31	1.03

PARAMETER	RANKING	SCORE
I. Enabling Framework	25	1.24
II. Clean Energy Investment & Climate Financing	30	0.46
III. Low-Carbon Business & Clean Energy Value Chains	39	1.04
IV. Greenhouse Gas Management Activities	19	1.59

SCORE SUMMARY

Ecuador's 1.03 overall 2015 score in *Climatescope* placed it 31st among all countries and was a two-position improvement from 2014. Ecuador's 2014 overall score was 0.96.

Ecuador's year-over-year improvement was based ona notable performance on the Clean Energy Rural Electrification and Growth Rate of Power Demand indicators of Parameter I. It also registered improvement in the Parameter III indicators of Financial Institutions in Clean Energy and Value Chains by Clean Energy Sectors.

On Enabling Framework Parameter I, Ecuador finished 25th in 2015, with a score of 1.24. It was 34th in 2014 on that parameter, with a 1.00.

On Clean Energy Investment and Climate Financing Parameter II, Dominican Republic ranked 30th, down 12 positions from the previous year. Its Parameter II scores were 0.46 in 2015 and 0.71 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Ecuador's 39th-place finish in 2015 was a 10-place improvement from its 2014 rank. The country's 2015 and 2014 Parameter III scores were 1.04 and 0.72, respectively.

On Greenhouse Gas Management Activities Parameter IV, Ecuador's 2015 and 2014 *Climatescope* ratings were identical: 19th place at 1.59.

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

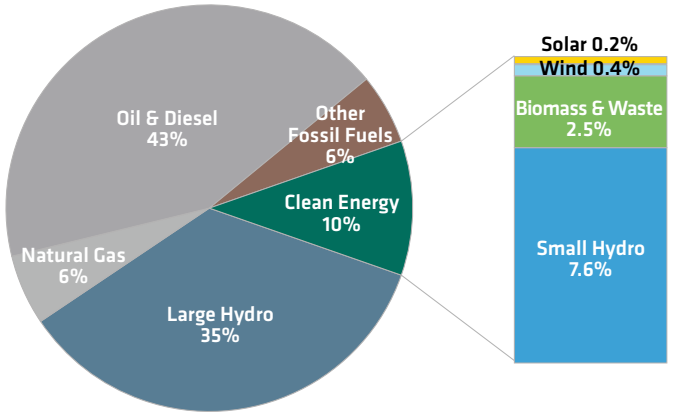
OVERVIEW

Ecuador is one of the few countries in Latin America with a feed-in tariff (FiT) scheme in place, although project development has remained slow. A predecessor Ecuadorian FiT, which expired in 2012, featured high rates and mostly benefited solar photovoltaic projects. The country now offers a non-solar FiT scheme, which is open for applications until 2016.

In Ecuador, the Ministry of Electricity and Renewable Energy (MEER) oversees renewable energy policy and planning. In 2015, the Act Establishing the Public Electric Power Service (LOSPEE) was published, overseeing regulation and structure of the power sector. Under this law, the National Electricity Board (CONELEC) becomes the Agency for Regulation and Control of Electricity (ARCONEL).

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

5.4GW total installed capacity



Source: Bloomberg New Energy Finance, Consejo Nacional de Electricidad

While generation is open to private players in Ecuador, transmission is under the responsibility of state-owned utility Corporación Eléctrica del Ecuador (CELEC EP Transelectric). Distribution is divided between 11 majority-public companies, where MEER is the majority shareholder.

In 2014, Ecuador had a total of 5.4GW of installed capacity, with 43% coming from thermal power, and just over one third from large hydropower. Clean energy encompassing small hydro, biomass, wind and solar plants, amounted to less than 11% of total capacity.

KEY POLICIES

Feed-in Tariff	FiT program guaranteed power prices above average market rate to 645MW of 111 projects from biomass, solar, small hydro and wind sources. The program ended in 2012.
Biofuels Blending	5% biodiesel blend with conventional diesel
Tax Incentives	Import tax exemption to clean energy equipment and income tax exemption to renewable generators.

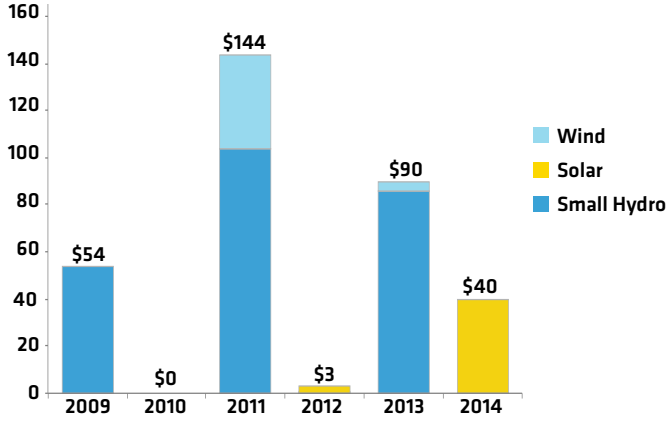
Source: Bloomberg New Energy Finance Policy Library

In 2011, the government published regulation 004/11, which created Ecuador's first FiT scheme for 15-year contracts. Biomass, geothermal, solar photovoltaic and thermal, wave and tidal and wind plants were included. PV plants received the highest tariffs, at $400/MWh. For projects in the Galapagos Islands, a premium was added. The program expired at the end of 2012 and contracted a total of 645MW from 111 projects from biomass, small hydro, solar and wind sources. In spite of the incentives, project development has been quite slow and only a few projects have been commissioned so far.

In 2013, the second edition of the FiT program was launched through regulation 001/13. This time, solar PV was not included, but other technologies may apply. Project applications will be received until December 2016.

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

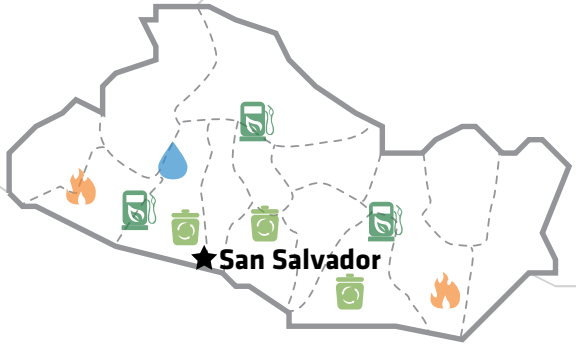
$331.2m total cumulative investment



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

El Salvador

GDP: **$25.2bn**
Five-year economic growth rate: **3.3%**
Population: **6.4m**
Total clean energy investments, 2009-2014: **$65.5m**
Installed power capacity: **1.6GW**
Renewable share: **22.6%**
Total clean energy generation: **1.7GWh**
Top energy authority: **National Energy Council**



OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
27	30	1.03

PARAMETER	RANKING	SCORE
I. Enabling Framework	23	1.27
II. Clean Energy Investment & Climate Financing	21	0.64
III. Low-Carbon Business & Clean Energy Value Chains	35	1.22
IV. Greenhouse Gas Management Activities	32	0.98

SCORE SUMMARY

El Salvador's 1.03 overall score in *Climatescope* 2015 placed it 30th among all countries, down from 27th in 2014, when it scored 1.12.

The country's ranking change was driven largely by a decline in the Clean Energy Investments Indicator of Clean Energy Investment and Climate Financing Parameter II. As a result, El Salvador also was penalized by its scoring on Parameter II's Growth Rate of Clean Energy Investments Indicator.

On Enabling Framework Parameter I, El Salvador finished 23rd, down from 14th in 2014. Its Parameter I scores were 1.27 in 2015 and 1.33 in 2014.

On Clean Energy Investment and Climate Financing Parameter II, El Salvador retreated from its fifth-place score of 1.12 in 2014 to 21st in 2015, when it scored 0.64.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, El Salvador improved to 35th place in 2015, with a score of 1.22. In 2014, the country's Parameter III score was 0.84, placing it 46th.

On Greenhouse Gas Management Activities Parameter IV, El Salvador improved four ranks to 32nd, with a score of 0.98. Its 2015 metrics were 36th place with a 0.85 score.

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

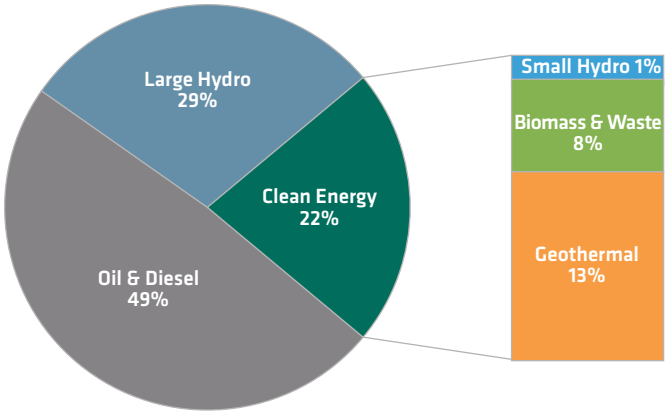
OVERVIEW

El Salvador's National Energy Policy aims to diversify its power matrix and reduce its oil dependency by adding more renewable capacity. The country conducts technology-specific renewable energy tenders and offers income and import tax exemptions to clean energy projects.

With 1.6GW of installed capacity in 2014, oil, hydro and geothermal are El Salvador's main sources of electricity. Out of the 5.8TWh produced that year, 42% came from oil-based generation, 30% from hydro and 25% from geothermal. The remaining power is generated by biomass plants.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

1.6GW total installed capacity



Source: Bloomberg New Energy Finance, Consejo Nacional de Energía

The National Energy Council (Comisión Nacional de Energía, or CNE) oversees the electricity sector in the country, while the Superintendencia General de Electricidad y Telecomunicaciones (SIGET) is the power sector regulator. State-owned Empresa Transmisora de El Salvador (ETESAL) is charged with transmission; Unidad de Transacciones (UT) regulates the wholesale power market and acts as the system operator. El Salvador is also part of the Central American Electrical Interconnected System (SIEPAC) and is connected to Guatemala and Honduras by 286km of transmission lines.

KEY POLICIES

Tax Incentives	Import duty exemption to clean energy equipment and machinery and income tax exemption to renewable generators.
Auctions	Distribution company Del Sur held the country's first auction and contracted 94MW of solar PV at an average price of $116.2/MWh.

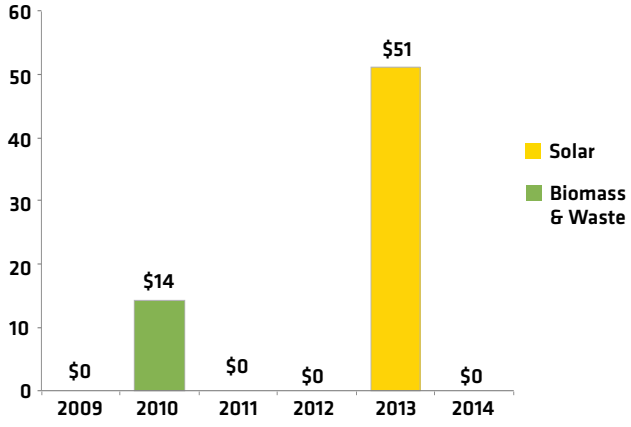
Source: Bloomberg New Energy Finance Policy Library

El Salvador's power market has been unbundled and generation is open to private operators. Around 13 independent power producers (IPPs) are active. One of the largest generators in the country is LaGeo, which initially was a joint-venture between Enel Green Power and El Salvador's state-owned Inversiones Energeticas (INE). After a long litigation process, El Salvador will acquire Enel Green's stake in the project (36.2%) and will become the single owner of LaGeo.

In the country, electricity is contracted between generators and distributors. Tenders have been introduced to replace expiring bilateral power agreements and encourage renewable energy contracts. The first auction for renewable capacity happened in 2014, and contracted 94MW of solar PV capacity that is expected to come online in 2016. Capacity was contracted at a $116.2/MWh average price under 20-year power purchase agreements.

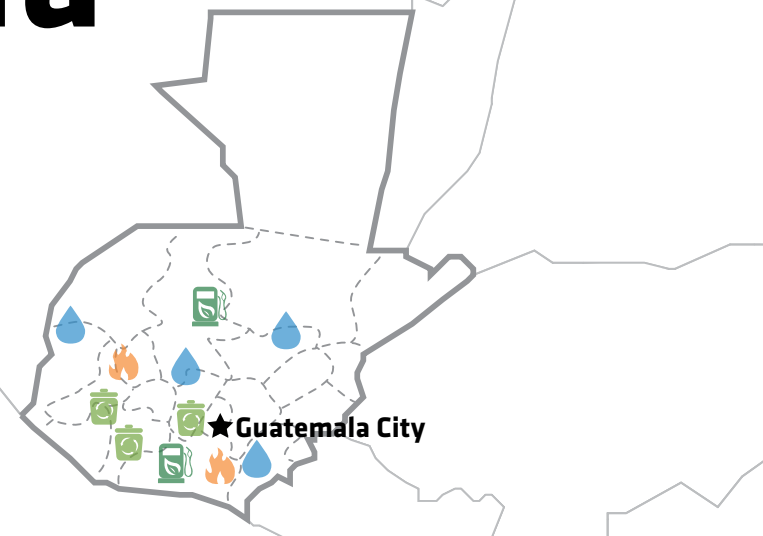
ANNUAL INVESTMENT IN CLEAN ENERGY, 2009-2014 ($m)

$218.8m total cumulative investment



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

Guatemala



GDP: **$58.7bn**
Five-year economic growth rate: **7.3%**
Population: **15.9m**
Total clean energy investments, 2009-2014: **$1.4bn**
Installed power capacity: **3.2GW**
Renewable share: **26.1%**
Total clean energy generation: **1.7TWh**
Top energy authority: **Ministry of Energy and Mines**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
29	18	1.40

PARAMETER	RANKING	SCORE
I. Enabling Framework	19	1.34
II. Clean Energy Investment & Climate Financing	04	1.56
III. Low-Carbon Business & Clean Energy Value Chains	35	1.22
IV. Greenhouse Gas Management Activities	23	1.45

SCORE SUMMARY

Guatemala's 1.40 overall score in *Climatescope* 2015 elevated it to 18th place, 11 levels above its 2014 ranking. Its 2014 overall score was 1.10.

The country's ranking change was propelled in major part by improvement on its Growth Rate of Clean Energy Investments Indicator of Clean Energy Investment and Climate Financing Parameter II.

On Enabling Framework Parameter I, Guatemala finished 19th in 2015, a two-place improvement from 2014. Its 2015 and 2014 Parameter I scores were 1.34 and 1.28, respectively.

On Clean Energy Investment and Climate Financing Parameter II, Guatemala vaulted to fourth place in 2015 from 25th in 2014. Its 2015 Parameter II score of 1.56 compares with 0.61 recorded for 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Guatemala in 2015 matched its 2014 score of 1.22. Its Parameter III rankings were 35th in 2015 and 34th in 2014.

On Greenhouse Gas Management Activities Parameter IV, Guatemala registered a score of 1.45 in both 2015 and 2014, ranking 23rd in 2015 and 21st in 2014.

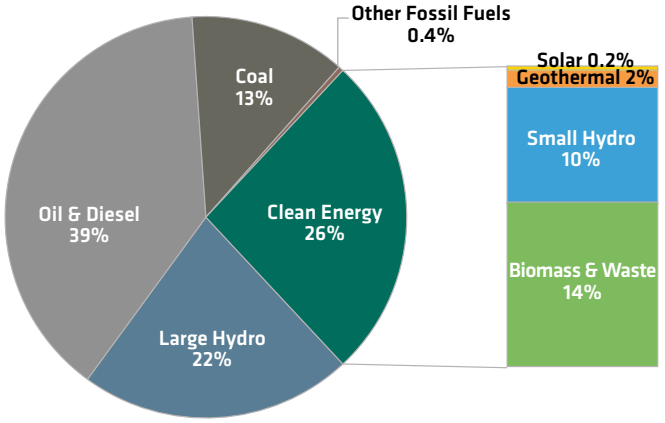
For further information, access www.global-climatescope.org/en/country/guatemala

OVERVIEW

Guatemala is the second largest Central American power market, with a total generating capacity of 3.2GW. In 2014, it generated 9.8TWh of electricity, with 48% coming from fossil-based generation. Large hydro is the next most important source, representing 36% of total power produced. Other renewables (small hydro, biomass and geothermal) amount to 16% of generation.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

3.2GW total installed capacity



Source: Bloomberg New Energy Finance, Administrador del Mercado Mayorista

The power market in Guatemala is unbundled, with state and private players acting in generation, transmission, energy trading and distribution segments. Guatemala is connected via the Central American Electrical Integration System (SIEPAC) to Honduras and El Salvador. In 2014, the country exported 986 GWh to Central America, which represents a 106% increase compared to 2013 (478GWh). This increase can be attributed to the higher demand of neighbor countries and excess generation from biomass plants in Guatemala. Additionally, northern Guatemala is also interconnected to Mexico's transmission system.

KEY POLICIES

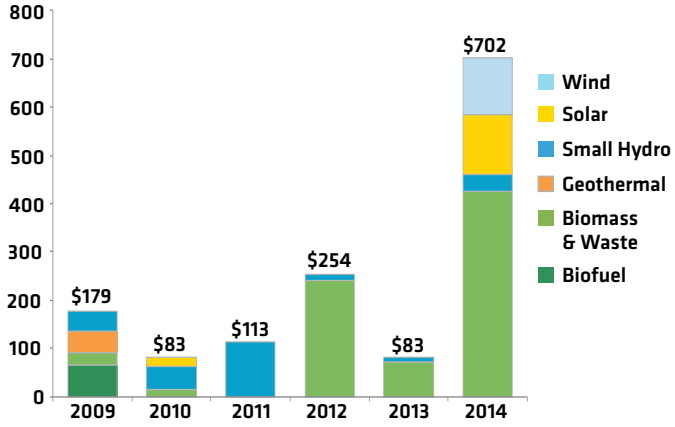
Auction	Comisión Nacional de Energía Eléctrica held the country's first auction, contracting 393MW from small hydro, wind, solar and biomass sources. A second auction will contract 250MW from conventional and renewable sources.
Tax Incentives	Import duty exemption for clean energy equipment and machinery; and VAT, income tax and industrial tax exemptions for renewable generators.

Source: Bloomberg New Energy Finance Policy Library

Since 2012, CNEE organizes tenders to contract power capacity where renewables may compete with all other sources. Distribution companies are the final offtakers. The first tender awarded a total of 393MW to small hydro (221MW), wind (101MW), solar (55MW) and biomass (16MW) plants, out of 623MW contracted for 15-year power purchase agreements. A second tender, in 2014, was set up to initially contract 250MW, open to all technologies. The auction contracted more than expected, a total of 322MW. This time, wind projects did not secure any contracts, as projects were not competitive enough, but other renewables (solar, biomass and small hydro) were awarded 116MW out of 322MW contracted.

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

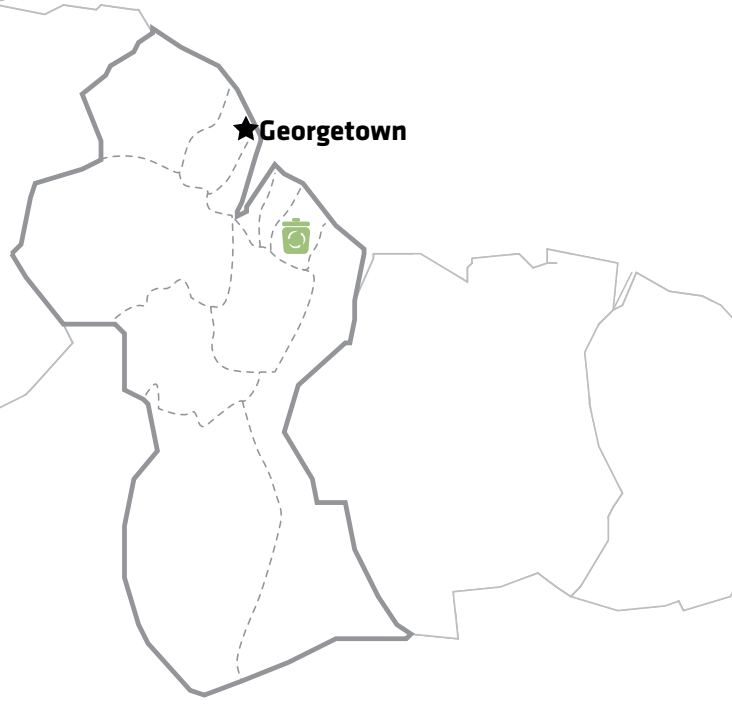
$1.4bn total cumulative investment



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

In 2015, the first auctioned projects started to come online. The country's first wind farm, a 53MW plant, was commissioned in the Guatemala department. Additionally, two large-scale PV plants (30MW and 50MW) were also commissioned in the Santa Rosa department, increasing Guatemala's renewable share. The addition of new renewable capacity and future pipeline of projects should have a positive impact on reducing electricity prices, decreasing them in the long term.

Guyana



GDP: **$3.2bn**
Five-year economic growth rate: **7.4%**
Population: **0.8m**
Total clean energy investments, 2009-2014: **$0.0m**
Installed power capacity: **177.4MW**
Renewable share: **16.9%**
Total clean energy generation: **36.0GWh**
Top energy authority: **Guyana Energy Agency**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
49	51	0.54

PARAMETER	RANKING	SCORE
I. Enabling Framework	45	0.78
II. Clean Energy Investment & Climate Financing	34	0.37
III. Low-Carbon Business & Clean Energy Value Chains	55	0.07
IV. Greenhouse Gas Management Activities	40	0.71

SCORE SUMMARY

Guyana's 0.54 overall score in *Climatescope* 2015 is a slight decline from its 2014 score of 0.60. The change left Guyana in 51st place overall in 2015, down from 49th place in 2014.

In 2015, Guyana registered improvement on the Growth Rate of Clean Energy Investments Indicator of Clean Energy Investment and Climate Financing Parameter II. However, its progress on that indicator was neutralized by diminished performance on the Loans, Grants and Grant Programs Indicator of Parameter II.

On Enabling Framework Parameter I, Guyana finished 45th in 2015, a five-place improvement from 2014. Its 2015 and 2014 Parameter I scores were 0.78 and 0.60, respectively.

On Clean Energy Investment and Climate Financing Parameter II, Guyana's ranking fell from 16th to 34th place. Its 2015 Parameter II score of 0.37 compares with 0.82 recorded for 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Guyana in 2015 matched its last-place finish of 2014. In both years, its Parameter III score was 0.07.

On Greenhouse Gas Management Activities Parameter IV, Guyana registered the same score, 0.71, in both 2015 and 2014. It ranked 40th in 2015 versus 41st in 2014.

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

OVERVIEW

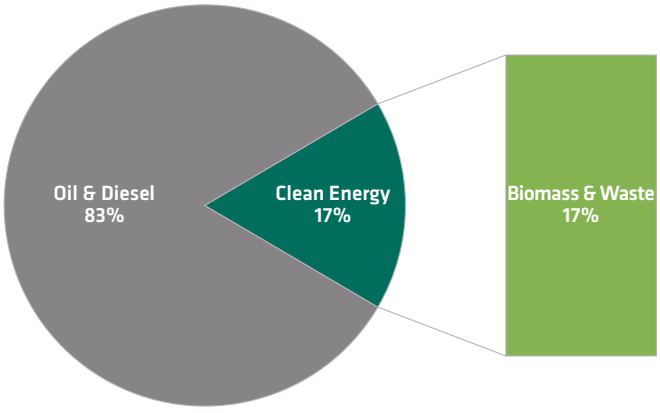
Guyana's demand for electricity has grown 18% in five years. That growth, plus the volatility of fossil fuel prices, highlights the country's need for a renewable energy policy framework. At this time, its renewables policy is limited to tax incentives.

Guyana's electricity market is controlled by the state-owned Guyana Power and Light (GPL), a vertically integrated company responsible for electricity distribution, transmission and part of generation. The country's market also includes independent power producers (IPP), which must sell their electricity to GPL.

Guyana relies mostly on power generation from fossil fuels. In 2014, 83% of its total 177MW of installed capacity was fuel oil and diesel, which is imported and its price is volatile. Biomass accounted for the remaining 17% of the installed capacity. Average retail electricity rates in Guyana are among the highest in Latin America and the Caribbean.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

177MW total installed capacity



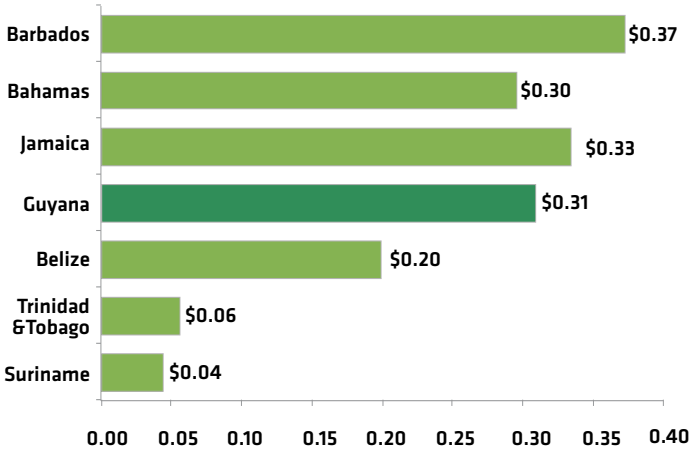
Source: Bloomberg New Energy Finance, Guyana Power & Light Company

The Government is developing a strategy for the introduction of renewable energy technologies in the country as a plan to diversify Guyana's electricity mix. A special focus will be on wind, solar and small hydro.

Guysuco operates a 30MW biomass plant using sugarcane bagasse, 10MW of which dispatches power to GPL's grid. Guysuco also operates the country's first ethanol plant, which was commissioned in August 2013.

Approximately 82% of the country's 0.8m population is connected to the grid, with the highest concentration in urban areas. To help increase access to electricity among the rural population, the government launched several initiatives. The Hinterland Electrification Program (HEP) was created in 2005 under the Unserved Areas Electrification Programme (UAEP) and implemented 11,000 65-watt photovoltaic solar home systems from 2011 to 2014. As of January 2015, 200 communities had benefited from the HEP.

AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/kWh)

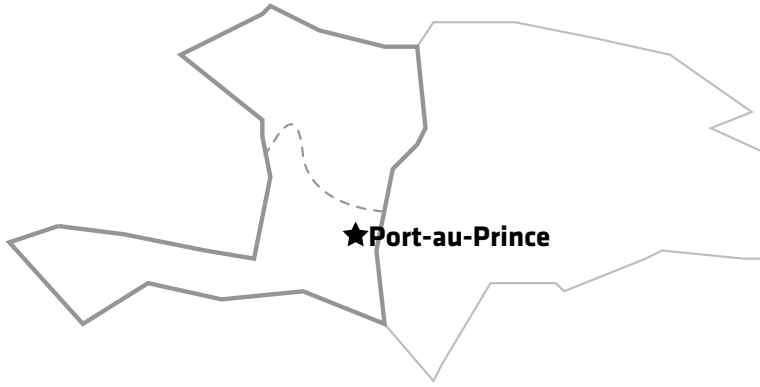


Source: Bloomberg New Energy Finance

Since 2012, the government of Guyana exempts machinery and equipment that generate or utilize power from renewable sources from the value-added tax (VAT) and import duties. This is the only renewable energy incentive currently in force.

CARIBBEAN

Haiti



GDP: **$8.7bn**

Five-year economic growth rate: **5.6%**

Population: **10.5m**

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

Installed power capacity: **254.6MW**

Renewable share: **24.9%**

Total clean energy generation: **0.2GWh**

Top energy authority:

Ministry of Public Works, Transportation and Communications

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
45	45	0.64

PARAMETER	RANKING	SCORE
I. Enabling Framework	39	0.89
II. Clean Energy Investment & Climate Financing	45	0.24
III. Low-Carbon Business & Clean Energy Value Chains	32	1.32
IV. Greenhouse Gas Management Activities	55	0.07

SCORE SUMMARY

Haiti's 0.64 overall score in *Climatescope* 2015, while slightly lower than the 0.73 recorded in 2014, was sufficient to retain its 45th-place position.

Haiti's progress was blocked by poor performance on the Green Micro Finance Category of Clean Energy Investment and Climate Financing Parameter II. It also was hampered by adverse scoring on the Average Cost of Debt Indicator of Parameter II.

On Enabling Framework Parameter I, Haiti in 2015 repeated its 39th-place ranking from 2014. Its 2015 and 2014 Parameter I scores were 0.89 and 0.92, respectively.

On Clean Energy Investment and Climate Financing Parameter II, Haiti's ranking fell from 37th to 45th place. Its 2015 Parameter II score of 0.24 compares with 0.38 recorded in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Haiti in 2015 scored 1.32, ranking it 32nd. Its 2014 metrics were a 1.58 score and a rank of 28.

On Greenhouse Gas Management Activities Parameter IV, Haiti in 2015 repeated its last-place rating from 2014. Its score was 0.07 in both years.

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

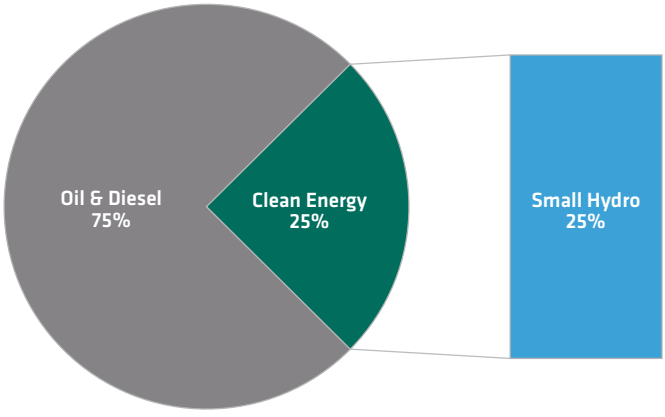
OVERVIEW

Haiti is slowly recovering from the 2010 earthquake by rebuilding its economy and infrastructure. In the process, improving access to energy plays a crucial role. In terms of utility-scale power generation, grants and projects have focused on restructuring Haiti's national power company, Electricité d'Haiti (EDH). On the small-scale side, microgrid projects have started to appear; the first three started operation in 2015.

Haiti has around 311MW of installed generating capacity, with the bulk of it (80%) from fossil-fueled plants. The remaining 20% comes from the Péligre hydro plant, currently undergoing restoration work, and other hydro plants. EDH owns 44% of the generation in Haiti and is also responsible for transmission and distribution on the island. Today, given infrastructure limitations, EDH is able to power Haiti's capital, Port-au-Prince, and a few cities nearby, but only intermittently. Meanwhile, diesel generators, kerosene lamps and other off-grid energy is widespread in the country.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

254.6MW total installed capacity



Source: Bloomberg New Energy Finance, Institut Haitien de Statistique et d'Informatique

All of this has created opportunities for clean distributed generation and the implementation of microgrids, especially in areas where EDH does not reach. With the help of a USAID grant, in 2015 Haiti's first microgrid started operation in the south of the country and providing solar-powered electricity to about 450 families in the city of Les Anglais. The system also counts on batteries to ensure reliability and smart meters support system stability while allowing customers to pre-pay for electricity. Since then, two other microgrids have started providing electricity, and are projected to serve 1700 customers.

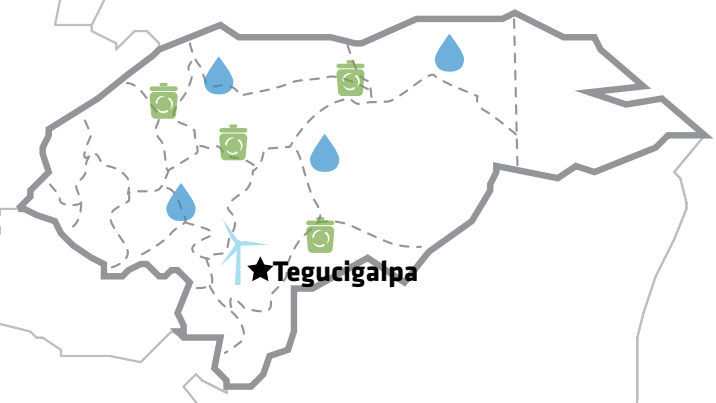
While Haiti does not have a specific legislation regarding microgrids, private companies are seeking opportunities to expand distributed generation in the island. The firm that installed the Les Anglais microgrid has made a commitment, along with UN's Sustainable Energy for All program, to install another 80 such projects in Haiti. Additionally, various start-up companies on the island are providing small lighting and energy systems from solar, biomass and mini-hydro.

CLEAN ENERGY VALUE CHAINS BY SECTOR

Sector / Quantity	**Available Sub-Sector,** Unavailable Sub-Sector
Biomass & Waste	**Efficient Cookstoves,** Other
Small Hydro	**Mini Energy Systems,** O&M
Solar	**Small Lighting Devices, Mini Energy Systems**
Wind	Mini-wind
Storage	Battery banks

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.

Honduras



GDP: **$19.4bn**

Five-year economic growth rate: **4.1%**

Population: **8.3m**

Total clean energy investments, 2009-2014: **$1.4bn**

Installed power capacity: **1.8GW**

Renewable share: **24.9%**

Total clean energy generation: **1.3TWh**

Top energy authority:

Department of Natural Resources and Environment

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
25	14	1.50

PARAMETER	RANKING	SCORE
I. Enabling Framework	34	1.06
II. Clean Energy Investment & Climate Financing	01	2.06
III. Low-Carbon Business & Clean Energy Value Chains	27	1.48
IV. Greenhouse Gas Management Activities	20	1.56

SCORE SUMMARY

Honduras advanced 11 places in *Climatescope* 2015, with an overall score of 1.50 to reach 14th place. The country's 2014 metrics were a 1.15 score and a 25th-place ranking.

In 2015, Honduras benefited from a notably stronger performance on the Growth Rate of Clean Energy Investments Indicator of Clean Energy Investment and Climate Financing Parameter II. The country also registered sharp improvement on the separate Local Investments Indicator of that parameter.

On Enabling Framework Parameter I, Honduras in 2015 lost ground, with a 1.06 score and a parameter ranking of 34th. In 2014, Honduras scored 1.29 on the parameter, ranking 20th.

Honduras in 2015 bested all *Climatescope* countries on Clean Energy Investment and Climate Financing Parameter II, with a 2.06 score. That result compares with a 0.64 rating in 2014, placing the country in 22nd place.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Honduras in 2015 scored 1.48, ranking it 27th. Its 2014 metrics were a 1.42 score and a rank of 30th.

On Greenhouse Gas Management Activities Parameter IV, Honduras in 2015 repeated its 20th-place ranking and its 1.56 score of the previous year.

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

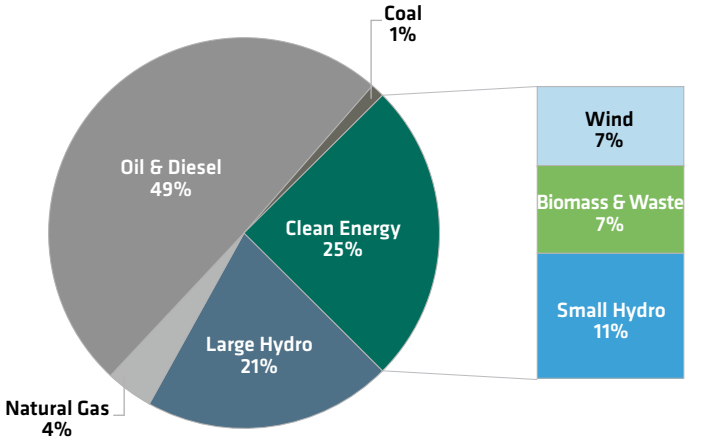
OVERVIEW

As a result of a generous feed-in tariff (FiT), most solar photovoltaic installations in Central America in 2015 will occur in Honduras. The FiT, along with a new electricity law, have created major changes to the renewable energy sector in the country.

Honduras's power sector is going through a period of transition. The power market has been controlled by state-owned utility Empresa Nacional de Energia Eléctrica (ENEE), which is responsible for all transmission and distribution. ENEE also generated 23% out of the total 7.6TWh produced in 2014, with the remaining coming from private players.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

1.8GW total installed capacity



Source: Bloomberg New Energy Finance, Empresa Nacional de Energia Electrica Honduras

The country approved a new electricity law that entered into force in July 2014 which will end ENEE's monopoly and allow greater participation of private players in the power market. It also creates an independent regulatory agency 'Comisión Reguladora de Energía (CREE)'. The new law was prompted by ENEE's high level of debt (equivalent to 1.8% of the country's $18.6bn GDP in 2013), late payments and power losses. The reform process is still ongoing.

Honduras has an installed capacity of 1.8GW. In 2014, more than half (53%) of 7.6TWh total power generation was produced using oil & diesel. Large hydro represented 23% of generation, while other renewables (biomass, small hydro and wind) accounted for 16% of power production.

KEY POLICIES

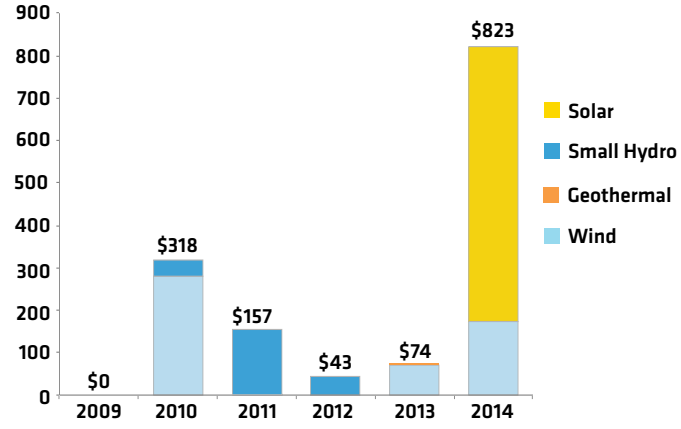
Feed-in Tariff	A 10% price premium for renewable projects and 15% for solar projects that sell electricity to the government-owned and operated electrical power company (ENEE).
Auction	ENEE has held one auction, awarding contracts to 37 renewable projects, from small hydro (257MW), geothermal (35MW), and biomass & waste (33MW) for 20 to 30-years contracts.
Tax Incentives	Import duty exemption to clean energy equipment and machinery and import and sale tax exemption to renewable generators.

Source: Bloomberg New Energy Finance Policy Library

Decree 70, published in June 2007, is the main source of renewable energy incentives. It establishes a 10% price premium to clean energy projects for the first 15 years of operation. It also grants import, income and sales tax exemption to renewable energy generators.

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

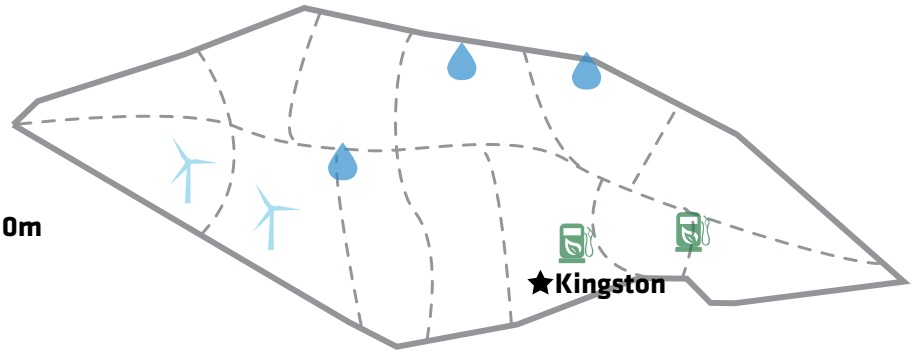
$1.4bn total cumulative investment



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

A feed-in tariff scheme offered contracts of $180/MWh for the first 300MW of PV commissioned before July 2015. Projects commissioned after that date receive $150/MWh. As of the second half of 2015, a total of 387MW of PV capacity had been commissioned in the country, making it the second largest solar market in Latin America.

Jamaica



GDP: **$14.4bn**
Five-year economic growth rate: **2.1%**
Population: **2.7m**
Total clean energy investments, 2009-2014: **$98.0m**
Installed power capacity: **925.4MW**
Renewable share: **7.7%**
Total clean energy generation: **256.0GWh**
Top energy authority: **Ministry of Energy and Mines**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
39	39	0.81

PARAMETER	RANKING	SCORE
I. Enabling Framework	33	1.09
II. Clean Energy Investment & Climate Financing	40	0.26
III. Low-Carbon Business & Clean Energy Value Chains	45	0.78
IV. Greenhouse Gas Management Activities	28	1.18

SCORE SUMMARY

Jamaica in 2015 maintained its overall 39th-place *Climatescope* ranking and had a 0.81 score. Its 2014 score was 0.80.

In 2015, Jamaica registered improvement on both the Clean Energy Policies Indicator of Enabling Framework Parameter I and the Growth Rate of Clean Energy Investments Indicator of Clean Energy Investment and Climate Financing Parameter II.

On Enabling Framework Parameter I, the country advanced two places to 33rd in 2015, with a 1.09 score. In 2014, Jamaica scored 1.00 on the parameter.

Jamaica in 2015 scored 0.26 on Clean Energy Investment and Climate Financing Parameter II, ranking it 40th. In 2014, the country had a 0.24 score on the parameter, ranking 49th.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Jamaica's score in 2015 fell to 0.78 from 2014's 1.03. Its Parameter III ranking in 2015 was 45th versus 39th in 2014.

On Greenhouse Gas Management Activities Parameter IV, Jamaica in 2015 equaled its 1.18 score of 2014 while falling from 26th place to 28th place on the parameter ranking.

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

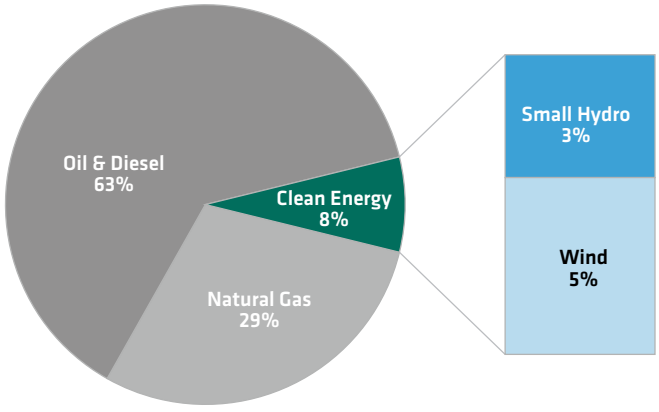
OVERVIEW

Jamaica seeks to decrease its oil dependency and improve its energy security by diversifying its electricity mix. The island nation was the Caribbean's first to hold clean energy-only auctions. The country's National Energy Plan 2009-2030 calls for 20% of its electricity generation to come from renewable sources by 2030.

Private utility Jamaica Public Service (JPS) is in charge of generation, transmission and distribution in the island (the government still owns 20% of the company). Other players may enter the market as independent power producers (IPPs) and sell electricity to JPS.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

1GW total installed capacity



Source: Bloomberg New Energy Finance, Office of Utilities Regulation

Jamaica relies mostly on fossil-fueled generation using imported fuels, which place a heavy burden on consumers. Retail electricity rates in Jamaica ($0.33/kWh) are at least 50% higher than the average price in the Latin American and Caribbean region.

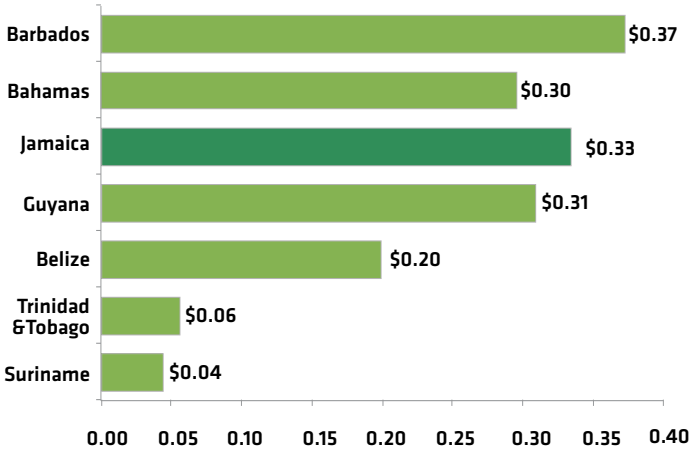
In 2014, 73% of Jamaica's total 4TWh of electricity production came from oil and diesel plants. Small hydro and wind accounted for 6% of the remaining generation. This mix is expected to change. Jamaica has held two renewable energy auctions to-date. Five projects have been awarded contracts from the auctions totaling 87MW from small hydro, solar and wind plants. The latest, in 2013, aimed to contract 115MW off which 78MW from the first round was contracted. The second round remains open. One of the projects has been financed so far. On 25 June 2015, the Overseas Private Investment Corporation (OPIC) announced a $47m loan to support a 20MW Jamaican PV plant in Clarendon Parish.

KEY POLICIES

Energy Target	20% of installed power capacity to be renewable by 2030.
Auction	The Office of Utilities Regulation held its first renewable energy tender, contracting 58MW of wind and 20MW of PV in three projects.
Net Metering	A pilot net metering program has 11 clients connecting renewable facilities to the grid.

Source: Bloomberg New Energy Finance Policy Library

AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/kWh)

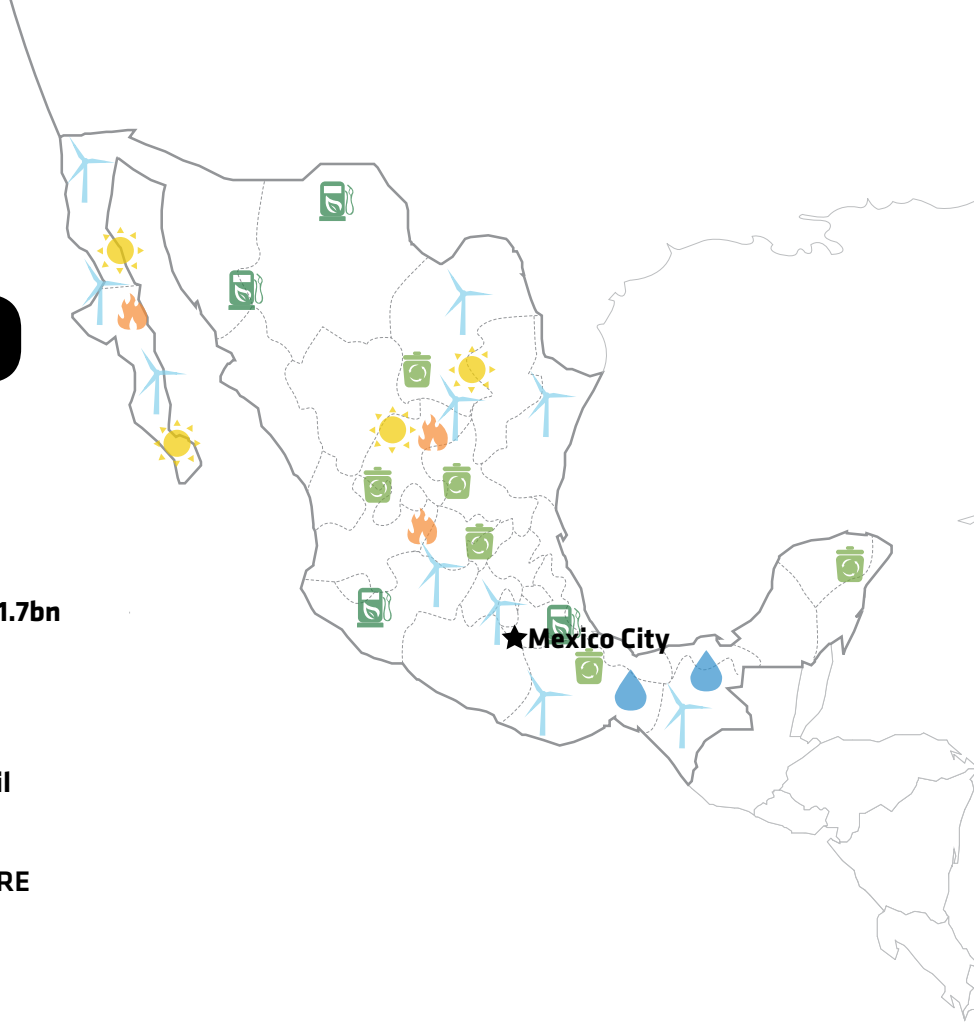


Source: Bloomberg New Energy Finance

Jamaica's national energy policy encompasses five draft sub-policies: renewable energy, biofuels, energy efficiency, waste-to-energy and carbon credits trading. Each includes voluntary goals which, as of March 2015, had not resulted in compulsory legislation. Consumers with their own generation facilities may participate in JPS's net metering pilot program. They receive an avoided-cost rate plus a 15% premium for electricity delivered to the national grid.

NORTH AMERICA

Mexico



GDP: **$1,283bn**

Five-year economic growth rate: **4.1%**

Population: **123.8m**

Total clean energy investments, 2009-2014: **$11.7bn**

Installed power capacity: **64GW**

Renewable share: **5.8%**

Total clean energy generation: **15.9TWh**

Top energy authority: **National Energy Council**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
8	7	1.72

PARAMETER	RANKING	SCORE
I. Enabling Framework	32	1.10
II. Clean Energy Investment & Climate Financing	12	0.85
III. Low-Carbon Business & Clean Energy Value Chains	07	3.84
IV. Greenhouse Gas Management Activities	04	3.01

SCORE SUMMARY

Mexico in 2015 moved up one position to seventh in its overall *Climatescope* ranking and achieved a 1.72 score. In 2014, Mexico recorded an overall score of 1.57.

In 2015, Mexico improved on the Clean Energy Policies Indicator of Enabling Framework Parameter I. However, that development was partially offset by softness on the Asset Finance Investment Indicator of Clean Energy Investment and Climate Financing Parameter II.

On Enabling Framework Parameter I, Mexico ranked 32nd in 2015, an eight-level improvement on 2014. Its Parameter I scores were 1.10 and 0.90 in 2015 and 2014, respectively.

Mexico in 2015 lost ground on Clean Energy Investment and Climate Financing Parameter II, sinking to 12th from sixth. Its 2015 Parameter II score was 0.85 versus 1.12 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Mexico joined the top 10 group of countries with a move into seventh place, with a score of 3.84. Its 2014 Parameter III metrics were 15th and a score of 2.82.

On Greenhouse Gas Management Activities Parameter IV, Mexico matched its fourth-place rating from the prior year. Its parameter scores were materially unchanged: 3.01 in 2015 and 3.02 in 2014.

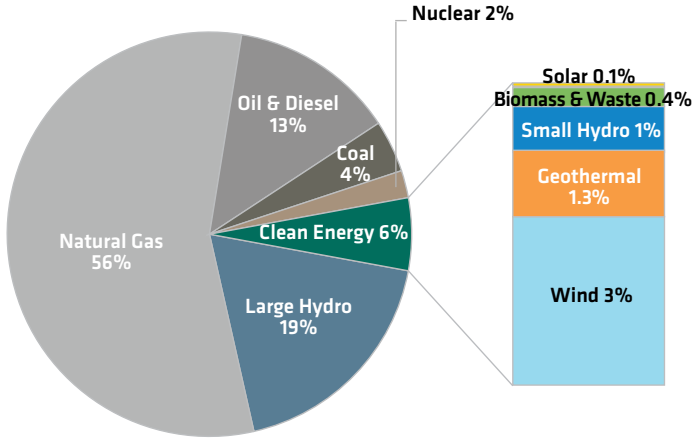
For further information, access www.global-climatescope.org/en/country/mexico

OVERVIEW

Mexico's energy sector is at a historical turning point. At the end of 2013, Congress passed sweeping reforms of Mexico's intended to lead to the liberalization of the power generation sector historically controlled by state-owned Federal Electricity Commission (Comisión Federal de Electricidad, or CFE). Regulation has since been rolled out, and the first new market mechanisms will start operation in 2016. By 2018, Mexico's generation market will operate under new rules.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

64GW total installed capacity



Source: Bloomberg New Energy Finance, Comisión Federal de Electricidad, Comisión Reguladora de Energía, Secretaria de Energía

In 2014, Mexico generated 6% of its electricity from renewables, including biomass and waste, geothermal, small hydro, wind and solar plants. As Latin America's largest natural gas producer, the country relies primarily on gas-fueled generation, which produced around 60% of the estimated 285TWh generated in 2014.

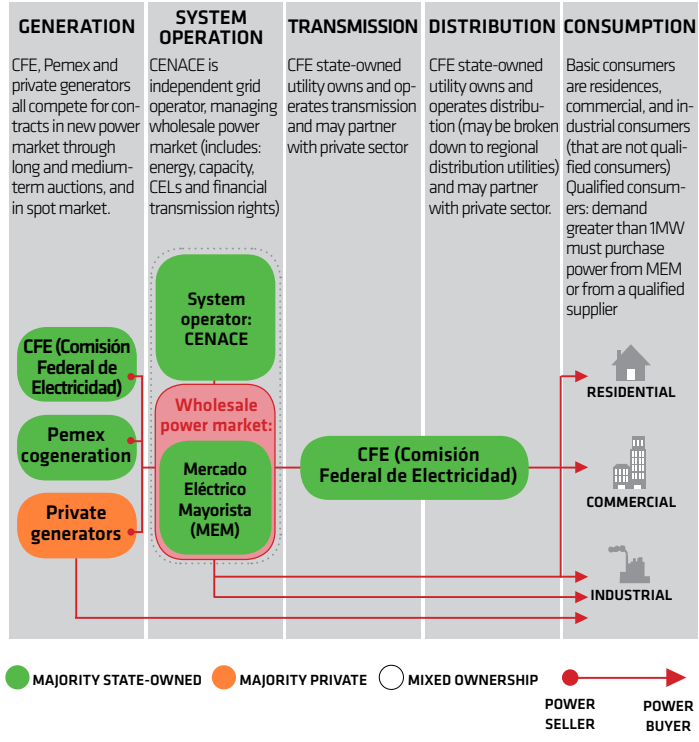
KEY POLICIES

Energy Target	35% of electricity generation coming from renewable sources (including large hydro and nuclear) by 2024.
Debt/Equity Incentive	Funds support clean energy grants for Mexican research institutes and renewable energy electrification programs.
Tax Incentives	Accelerated depreciation for renewable energy projects and machinery.
Net Metering	Retail electricity consumers may connect their renewable facilities to the national grid, delivering surplus generation and obtaining billing credit for excess electricity provided.

Source: Bloomberg New Energy Finance Policy Library

POWER SECTOR STRUCTURE

Regulator: CRE (Comisíon Reguladora de Eletricidad)

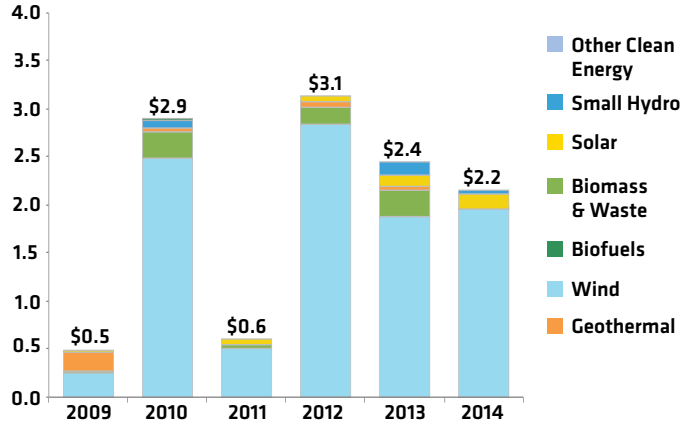


Source: Bloomberg New Energy Finance
Note: this diagram reflects Mexico power market structure after full implementation of power market reforms, which is expected to be rolled out through to the beginning of 2018.

Mexico's electricity market has been tightly regulated – although this is about to change thanks to the reforms. CFE controlled all on-grid power supplies and determined which projects were to be developed by independent power producers. These projects could sell electricity to CFE, which awarded power contracts through tenders. The only other options for private generators were to sell electricity directly to large consumers via bilateral agreements or to qualify for a permit as a small power producer.

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

$11.7bn total cumulative investment



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

Mexico's energy reforms amended the constitution and opened generation to private developers, while transmission and distribution will remain under CFE, with some role for private investment. In addition, the reforms create a wholesale power market, operated by a new independent system operator, the Energy Control National Center (Centro Nacional de Control de Energía, or CENACE). The reforms bring auctions to supply power to the system and pave the way for clean energy certificates (certificados de energias limpias or CELs), which will be required to demonstrate compliance with a yearly clean energy obligation.

A mandate requires that in 2018, 5% of the country's power consumption comes from clean sources (which include renewables, large hydro, nuclear and efficient cogeneration). In 2014, around 21% of the country's generation was from non-fossil sources (applicable to the country's renewable energy target, which includes nuclear and large hydro).

LEAGUE TABLE

2014 Total Investments	$2,157m

Top Lead Debt Arrangers 2014 ($m)

Banco Santander	$220m
BMizuho Financial Group Inc	$54m
Sumitomo Mitsui Financial Group	$54m

Top Equity Sponsors 2014 ($m)

Fisterra Energy	$453m
Enel SpA	$300m
InterGen NV	$159m

Top Three Asset Finance Deals, 2014 ($m)

Rank	Sector	Project	Developer	Value
1st		Cemex Ventika Wind Portfolio	Cemex and Fisterra Energy	$699m
2nd		Sierra Juarez Wind Farm	Ienova and InterGen	$344m
3rd		Enel Dominica II Charcas Wind Farm	Enel	$212m

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

Mexico also has greenhouse gas reduction targets: a 30% reduction in greenhouse gas emissions by 2020 and 50% by 2050, with emission levels of 2000 set as the baseline.

Renewable energy developers may benefit from accelerated depreciation on the value of their investment in equipment. Goods used for pollution control and research and development purposes are also exempt from import and export taxes. Mexico has two state-run renewable energy funds: one supports energy efficiency and rural electrification initiatives, while the other offers grants to renewable energy and energy efficiency projects developed by Mexican research and academic institutions.

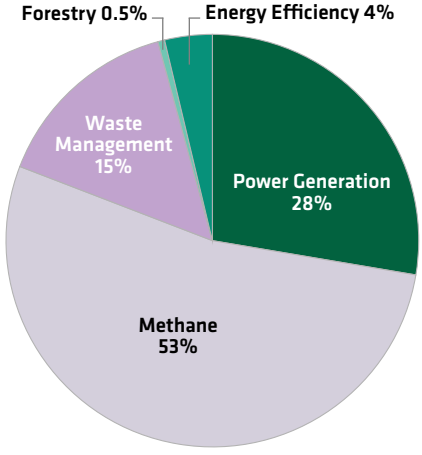
FINANCIAL INSTITUTIONS IN CLEAN ENERGY

✓	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

188 CDM and voluntary carbon offset projects



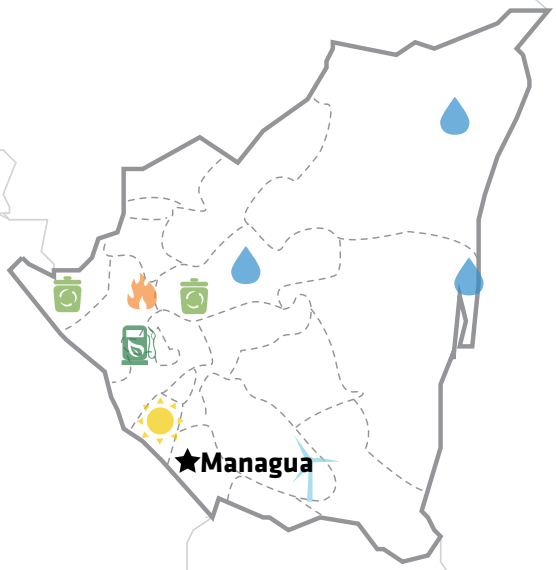
Source: UNEP Risoe, Bloomberg New Energy Finance

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.

Nicaragua



GDP: **$11.8bn**
Five-year economic growth rate: **6.2%**
Population: **6.2m**
Total clean energy investments, 2009-2014: **$1.4bn**
Installed power capacity: **1.3GW**
Renewable share: **41.2%**
Total clean energy generation: **2.3TWh**
Top energy authority: **Ministry of Energy and Mines**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
14	27	1.14

PARAMETER	RANKING	SCORE
I. Enabling Framework	09	1.53
II. Clean Energy Investment & Climate Financing	26	0.53
III. Low-Carbon Business & Clean Energy Value Chains	42	0.97
IV. Greenhouse Gas Management Activities	21	1.53

SCORE SUMMARY

Nicaragua in 2015 surrendered 13 places in its overall *Climatescope* ranking, falling to 27th with a score of 1.14 from 14th last year, when it scored 1.37.

Nicaragua's latest performance was dented by declines in the Amount Invested Category of Clean Energy Investment and Climate Financing Parameter II. It also compared unfavorably in 2015 with 2014 on the Loans, Grants, Grant Programs Indicator of that parameter.

On Enabling Framework Parameter I, Nicaragua's latest score of 1.53 was enough to rank it ninth. In 2014, a slightly lower score of 1.51 earned it the higher rank of sixth.

Nicaragua in 2015 lost ground on Clean Energy Investment and Climate Financing Parameter II, sinking to 26th from fourth. Its 2015 Parameter II score was 0.53 versus 1.16 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Nicaragua occupied 42nd place in 2015, with a score of 0.97. Its 2014 Parameter III metrics were 36th position and a score of 1.16.

On Greenhouse Gas Management Activities Parameter IV, Nicaragua in 2015 was in 21st place, with a 1.53 score. In 2014, it occupied 18th place, with a score of 1.61.

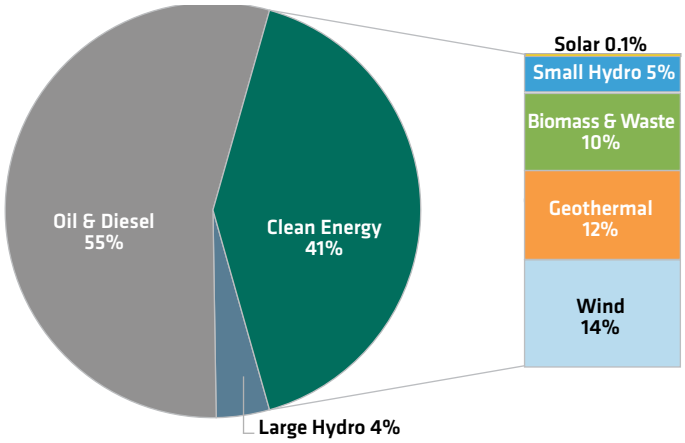
For further information, access www.global-climatescope.org/en/country/nicaragua

OVERVIEW

In Nicaragua, the government has set a non-binding 91% renewable energy generation target by 2027. Renewable energy developers enjoy a full range of tax breaks, including import duty, VAT and income tax exemptions. Distributors must prioritize the purchase of energy coming from clean sources by allocating a percentage to renewable power in tenders for electricity.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

1.3GW total installed capacity



Source: Bloomberg New Energy Finance, Agencia de Promoción de Inversiones de Nicaragua PRONicaragua

Nicaragua has a diversified renewable matrix. In 2014, 52% of the 4.4TWh generated in the country came from biomass, geothermal, solar, small hydro and wind. Thermal plants using fossil fuels still are Nicaragua's main source of electricity and were responsible for 45% of total generation that year. Large hydro plants accounted for the remaining 3%.

According to the country's November 2013 national plan for electricity expansion, Nicaragua established an interim renewables goal of 74% by 2018 in the course of attaining the voluntary target of 91% of energy generation by 2027. Large hydro qualifies toward goal attainment.

KEY POLICIES

Energy Target	91% renewable installed power capacity (including large hydro) by 2017.
Tax Incentives	Import duty exemption for clean energy equipment, VAT, income tax, and natural resources tax exemption to renewable generators

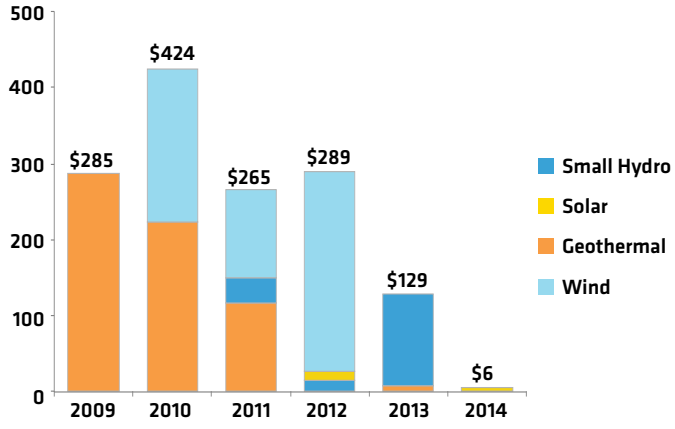
Source: Bloomberg New Energy Finance Policy Library

Electricity generation can be contracted via tenders organized by distributors or through bilateral contracts between generators and distributors and/or large consumers. The Instituto Nicaragüense de Energía (INE) regulates the electricity sector, where transmission and distribution are subject to regulated tariffs and generators can compete freely in the market.

Law 532 is Nicaragua's main policy supporting renewable development. It mandates the set-asides for renewable energy in tenders and that contracts be at least 10 years in duration. INE is responsible for defining the percentage allocated for renewables in tenders. Generators that do not have contracts with distributors or large consumers may sell their power in the spot market, where they can receive a price determined by near-term supply and demand conditions.

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

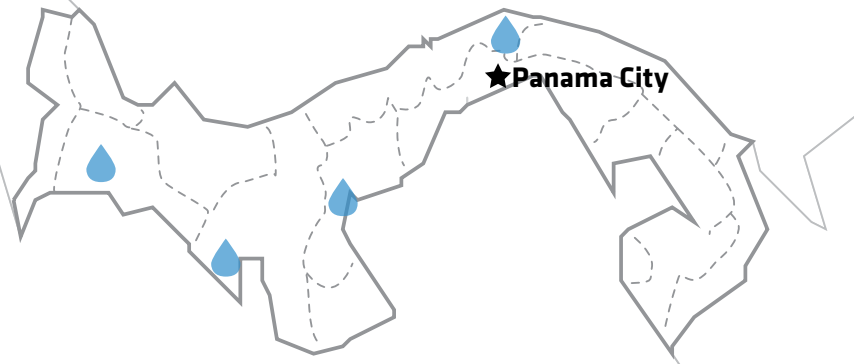
$1.4bn total cumulative investment



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

In 2015, the government implemented reference prices for renewable energy technologies in order to improve the competitiveness of clean energy sources in the country. These reference prices would apply to biomass, geothermal, hydro, solar and wind projects. Prices vary from $66/MWh-$80/MWh (lowest range) for wind projects up to $103/MWh-$118/MWh (highest range) for solar plants.

Panama



GDP: **$46.2bn**
Five-year economic growth rate: **9.9%**
Population: **3.9m**
Total clean energy investments, 2009-2014: **$1.9bn**
Installed power capacity: **2.8GW**
Renewable share: **9.5%**
Total clean energy generation: **852.8GWh**
Top energy authority: **National Secretariat of Energy**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
28	21	1.31

PARAMETER	RANKING	SCORE
I. Enabling Framework	13	1.48
II. Clean Energy Investment & Climate Financing	06	1.30
III. Low-Carbon Business & Clean Energy Value Chains	33	1.27
IV. Greenhouse Gas Management Activities	36	0.93

SCORE SUMMARY

Panama's 1.31 overall score in *Climatescope* 2015 placed it 21st among all countries, up from 28th position in 2014, when it scored 1.11.

The country's ascent was powered by gains on both Clean Energy Investment and Climate Financing Parameter II and Low-Carbon Business & Clean Energy Value Chains Parameter III. Panama's strength in the Growth Rate of Clean Energy Investments Indicator of Parameter II was instrumental, as was its performance on Parameter III's Financial Institutions in Clean Energy Indicator.

On Enabling Framework Parameter I, Panama finished 13th, down two places from 2014, with a score of 1.48. Its 2014 score was 1.339.

On Clean Energy Investment and Climate Financing Parameter II, Panama scored 1.39, up from 0.89 in 2014. Its Parameter II ranking was sixth in 2015 versus 11th in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Panama's 33rd-place finish in 2015 was seven places above its position. The country's 2015 and 2014 Parameter III scores were 1.27 and 1.02, respectively.

On Greenhouse Gas Management Activities Parameter IV, Panama slipped three places to 36th. Its 2015 and 2014 Parameter IV scores were 0.93 and 0.91, respectively.

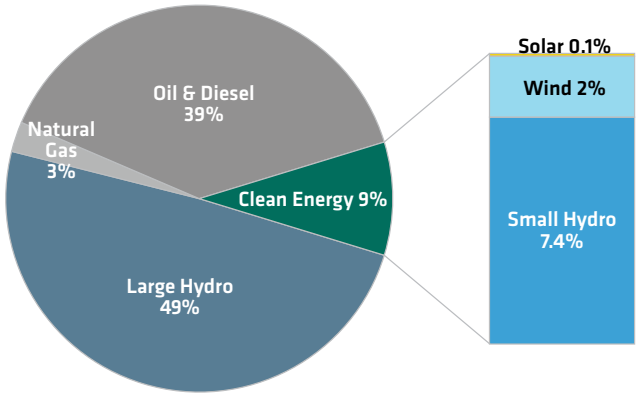
For further information, access www.global-climatescope.org/en/country/panama

OVERVIEW

To date, Panama's clean energy policies have focused particularly on wind and solar, and have included technology-specific auctions plus exclusive tax benefits for both. The country also supports small-scale projects through a range of tax incentives.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2.8GW total installed capacity



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

In the first half of 2014, Panama relied primarily on fossil sources to meet its power needs due to a prolonged drought that affected the country. 57% of the 4.5TWh generated in the first half of the year came from oil, diesel and natural gas; 34% came from large hydro plants, with small hydro accounting for another 6.6%; and the remaining 2% generated from clean energy plants. The first half of the year also saw a substantial rise to 176GWh in Panama's electricity imports from the Central America Regional Market (MER) given a severe drought that hit the country. Hydro generation picked up later in the year, but it raised a flag for the need of diversification of power generation sources.

KEY POLICIES

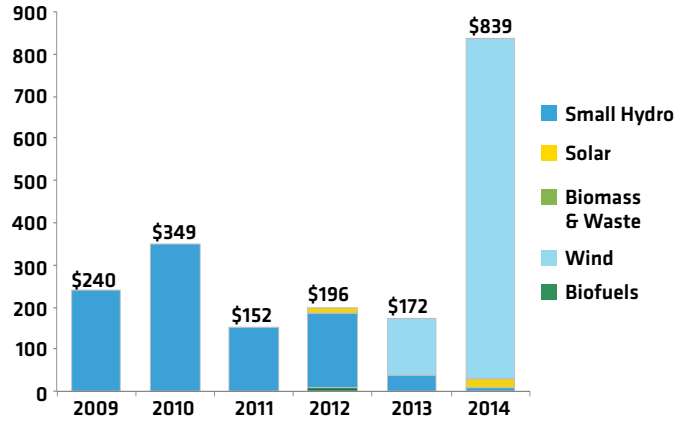
Feed-in Tariff	A 5% price premium is given to renewable projects up to 3MW that sell electricity to La Empresa de Transmisión Eléctrica (ETESA).
Auction	ETESA held two reverse auctions for wind, contracting eight plants with a total capacity of 283MW.
Biofuels	Mandatory blending of ethanol with gasoline 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

State-owned Empresa de Transmissión Eléctrica (ETESA) is Panama's sole transmission company and also responsible for organizing tenders to purchase power. Following other Latin American countries, Panama has adopted auctions to contract renewable capacity. Utility regulator Autoridad Nacional de los Servicios Publicos (ASEP) sets tender guidelines and ETESA conducts the auction. Panama held its first wind auction in 2011, awarding contracts to 158MW of projects. The country held a second wind auction in 2013 that awarded a total capacity of 125MW scheduled to be online by 2019. The wind sector also receives exclusive incentives, such as accelerated depreciation for relevant equipment and a 15-year tax exemption for Panama-based companies manufacturing wind equipment. In 2014, Panama held its first tender for solar power contracts, awarding contracts to five projects with a total generation of 90GWh per year, scheduled to be commissioned by 2017. In 2015, the country organized one additional tender, but to contract natural gas capacity – a 350MW power plant.

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

$1.9bn total cumulative investment



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

SOUTH AMERICA

Paraguay

GDP: **$31.0bn**
Five-year economic growth rate: **9.1%**
Population: **6.9m**
Total clean energy investments, 2009-2014: **$28.2m**
Installed power capacity: **8.8GW**
Renewable share: **0.0%**
Total clean energy generation: **0.0GWh**
Top energy authority: **Vice Ministry of Mines and Energy**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
50	52	0.49

PARAMETER	RANKING	SCORE
I. Enabling Framework	51	0.49
II. Clean Energy Investment & Climate Financing	43	0.26
III. Low-Carbon Business & Clean Energy Value Chains	53	0.20
IV. Greenhouse Gas Management Activities	25	1.26

SCORE SUMMARY

Paraguay's 0.49 overall score in *Climatescope* 2015 placed it 52nd among all countries, up from 50th position in 2014, when it scored 0.59.

The country lost ground on all parameters except Greenhouse Gas Management Activities Parameter IV, where it held even. Its biggest retreat was four places on Enabling Framework Parameter I, where its performance on the Clean Energy Policies Indicator weakened.

On Enabling Framework Parameter I, Paraguay finished 51st, with a 0.49 score. Its 2014 data was 47th place, with a 0.67 score.

On Clean Energy Investment and Climate Financing Parameter II, Paraguay scored 0.26 in 2015, down from 0.35 in 2014. Its Parameter II ranking was 43rd in 2015 versus 40th in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Paraguay's 53rd-place finish in 2015 was one place below its 2014 position. The country's 2015 and 2014 Parameter III scores both were 0.20.

On Greenhouse Gas Management Activities Parameter IV, Paraguay in 2015 matched its 2014 performance with a ranking of 25th and a score of 1.26.

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

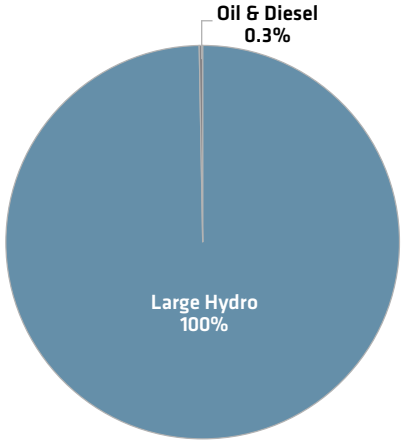
OVERVIEW

With most of its electricity demand met by three large hydro plants totalling 8.8GW, Paraguay has had little incentive to develop a policy framework for other renewable energy sources. In fact, the country is a net exporter of electricity in South America. The only clean energy policy incentive in Paraguay is a biofuel blending mandate for gasoline and diesel.

Paraguay's electricity market is overseen by the Department of Mines and Energy, which is under the Ministry of Public Works and Communications (Ministerio de Obras Públicas y Comunicaciones) and controlled by state-owned vertically integrated utility Administración Nacional de Electricidad (ANDE). ANDE allows the participation of independent power producers (IPPs) according to Law 3009. However, as of 2014, there were no independent power producers registered in the country.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

8.8GW total installed capacity



Source: Bloomberg New Energy Finance, Departamento de Estudios Estadísticos (DP/DES) - Administración Nacional de Electricidad (ANDE)

KEY POLICIES

Biofuels	Mandated 24% ethanol-gasoline blend, and 5% biodiesel blend.

Source: Bloomberg New Energy Finance Policy Library

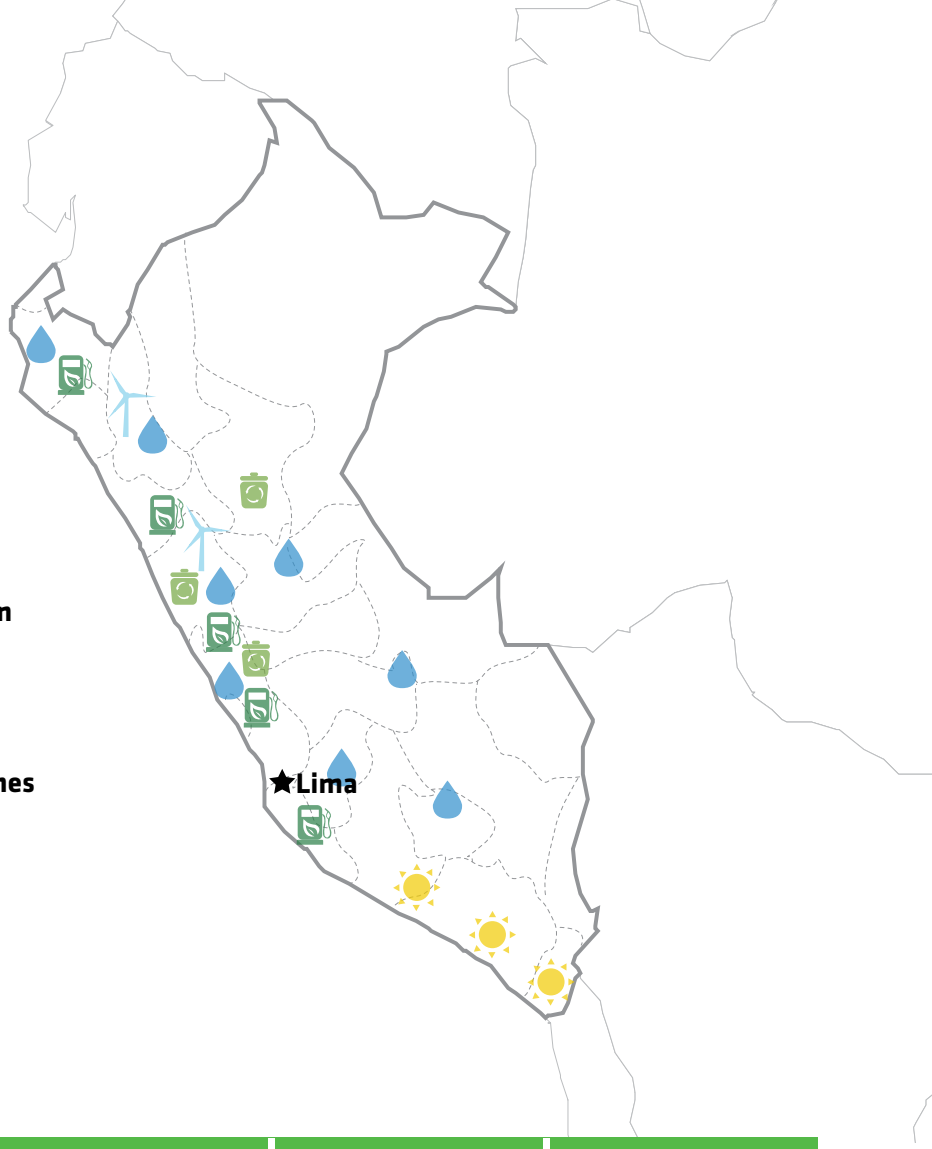
Paraguay exports power from its large hydro plants to Brazil and Argentina. Besides large hydro, Paraguay has a small group of generators totaling 200MW that use diesel for fuel. In 2014, the country generated a total of 55TWh, more than its much larger South American neightbors like Peru which has a population four times the size of Paraguay's .

The abundant availability of low-cost electricity has a direct impact on retail power prices, which are significantly low – consumers pay on average $0.07/kWh to purchase electricity from ANDE.

Paraguay mandates that all diesel sold commercially in the country must contain 5% biodiesel and gasoline must contain 18% to 24% of ethanol, depending on octane requirements. In June of 2015, the Paraguayan Congress approved a law to support the consumption of biofuels in the country, requesting on-site pumps for ethanol.

SOUTH AMERICA

Peru



GDP: **$202.9bn**
Five-year economic growth rate: **6.4%**
Population: **30.8m**
Total clean energy investments, 2009-2014: **$3.9bn**
Installed power capacity: **10.8GW**
Renewable share: **9.8%**
Total clean energy generation: **4.3TWh**
Top energy authority: **Ministry of Energy and Mines**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
11	16	1.44

PARAMETER	RANKING	SCORE
I. Enabling Framework	18	1.34
II. Clean Energy Investment & Climate Financing	16	0.70
III. Low-Carbon Business & Clean Energy Value Chains	21	2.11
IV. Greenhouse Gas Management Activities	09	2.49

SCORE SUMMARY

Peru's 1.31 overall score in *Climatescope* 2015 placed it 16th among all countries, down from 11th position in 2014, when it scored 1.50.

Peru's year-over-year decline was based in part on deterioration in the Clean Energy Policies Indicator of Enabling Framework Parameter I. It also saw a minor decline in the Growth Rate of Clean Energy Investments Indicator of Clean Energy Investment and Climate Financing Parameter II.

On Enabling Framework Parameter I, Peru finished 18th, down eight places from 2014, with a 2015 score of 1.34. Its 2014 score was 1.40.

On Clean Energy Investment and Climate Financing Parameter II, Peru scored 0.70, down from 0.88 in 2014. Its Parameter II ranking was 16th in 2015 versus 12th in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Peru's 21st-place finish in 2015 was two places above its 2014 position. The country's 2015 and 2014 Parameter III scores were 2.11 and 2.05, respectively.

On Greenhouse Gas Management Activities Parameter IV, Peru maintained its ninth-place rating of 2014. Its 2.49 2015 score is a slight improvement over 2014's 2.46.

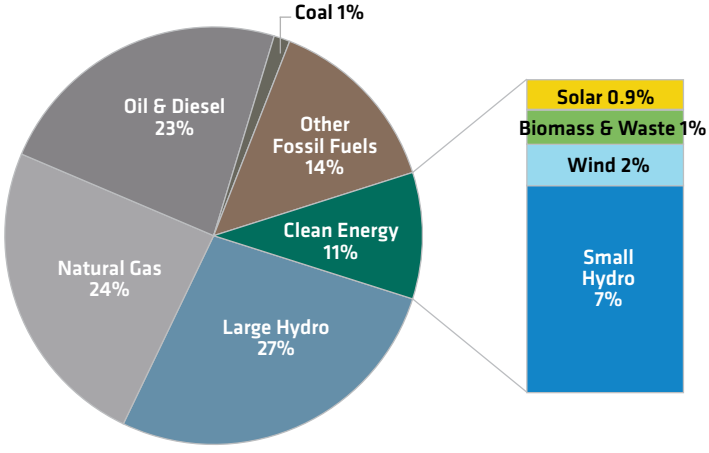
For further information, access www.global-climatescope.org/en/country/peru

OVERVIEW

Technology-specific auctions have been one of the key drivers of non-conventional renewable deployment in Peru, helping to promote diversification of the country's matrix through contract awards for biomass, small hydro, solar and wind plants. The country also has a modest clean energy generation target and a biofuel blending mandate.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

10.8GW total installed capacity



Source: Bloomberg New Energy Finance, MINEM, Osinergmin, COES SINAC

In 2014, Peru generated 9% of its total 45TWh from renewable sources (biomass, wind, solar and small hydro), large hydro accounting for 41%, natural gas accounting for 27%, and coal, oil and diesel for the rest. To promote renewables, Peru offers several policy incentives, including priority dispatch, 20% accelerated depreciation and technology-specific auctions for renewables. Because of the country's hydro and gas resources, intermittent clean energy sources are usually only contracted through the regular auction system.

KEY POLICIES

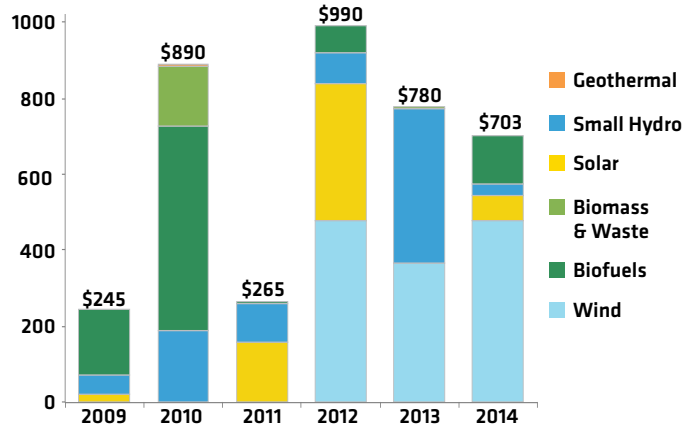
Energy Target	Renewable power consumption was to reach 5% of total by 2013. Target was achieved in 2010 and has not been revised.
Auction	The national energy and mining investment regulator has held three auctions, contracting a total of 58 projects from small hydro (526MW), wind (234MW), solar (100MW) and biomass & waste (31MW) sources for 20 years.
Biofuels	Mandate 5% biodiesel blend and a 7.8% ethanol blend.
Tax Incentives	Accelerated depreciation of up to 20% for renewable energy generation investments in machinery and equipment.
Utility Regulation	Peru's grid operator is required to guarantee priority dispatch for electricity generated from renewable sources.

Source: Bloomberg New Energy Finance Policy Library

Introduced in 2008, the auctions have been key in spurring project development. The Ministerio de Energia y Minas (MINEM) every two years evaluates the need for auctions, and the Organismo Supervisor de la Inversión en Energía y Mineria (OSINERGMIN) conducts the tenders.

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

$3.9bn total cumulative investment

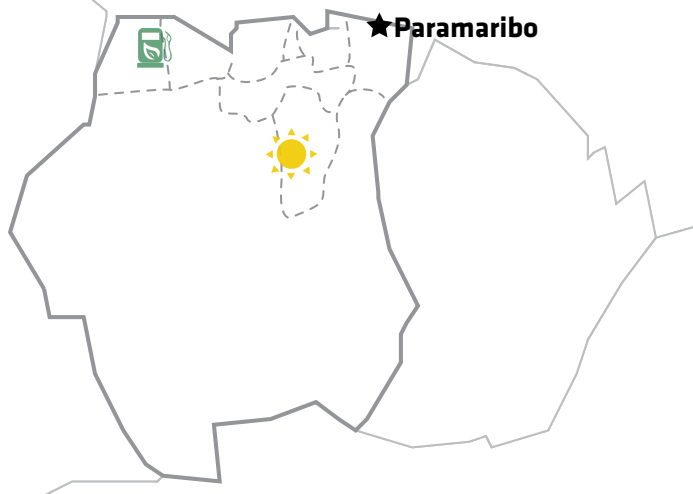


Source: Bloomberg New Energy Finance
Notes: Total investment includes: Asset Finance, Corporate Finance and Venture Capital / Private Equity Commitments.

Peru has held three renewable on-grid auctions and one for off-grid solar capacity. In the on-grid tenders, OSINERGMIN has awarded power contracts to 58 projects for a total of 882MW from biomass, small hydro, solar and wind sources. Due to the off-grid auction, 500,000 off-grid solar PV systems are expected to be in operation in 15,000 remote locations in the country by December 2018. A fourth renewable energy on-grid auction was launched in September 2015. The auction will contract 450GWh from small hydro projects up to 20MW in size and another 1,300GWh of biomass, wind and solar PV.

The government submitted its Intended Nationally Determined Contributions (INDC) in advance of the climate negotiations in Paris. Contributions include renewable energy and greater emphasis on solar energy.

Suriname



GDP: **$5.3bn**
Five-year economic growth rate: **6.4%**
Population: **0.5m**
Total clean energy investments, 2009-2014: **$14.1m**
Installed power capacity: **384.0MW**
Renewable share: **1.3%**
Total clean energy generation: **11.3GWh**
Top energy authority: **Ministry of Natural Resources**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
55	55	0.22

PARAMETER	RANKING	SCORE
I. Enabling Framework	54	0.19
II. Clean Energy Investment & Climate Financing	41	0.26
III. Low-Carbon Business & Clean Energy Value Chains	54	0.20
IV. Greenhouse Gas Management Activities	52	0.25

SCORE SUMMARY

Suriname failed to improve on its last-place finish in last year's *Climatescope* 2014 and in fact registered a lower overall score of 0.22 this year.

Suriname's slight gain on Low-Carbon Business & Clean Energy Value Chains Parameter III could not overcome deterioration on Clean Energy Investment and Climate Financing Parameter II, where it was negatively impacted on the Loans, Grants, Grant Programs Indicator.

On Enabling Framework Parameter I, Suriname finished 54th both last year and this year.

On Clean Energy Investment and Climate Financing Parameter II, Suriname scored 0.26, down from 0.47 last year. Its Parameter II ranking was 41st this year.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Suriname's score of 0.20, matched its last year tally, putting it in 54th place.

On Greenhouse Gas Management Activities Parameter IV, Suriname moved down one rank to 52nd. Its 2015 score was 0.25 and its 2014 score was 0.33.

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

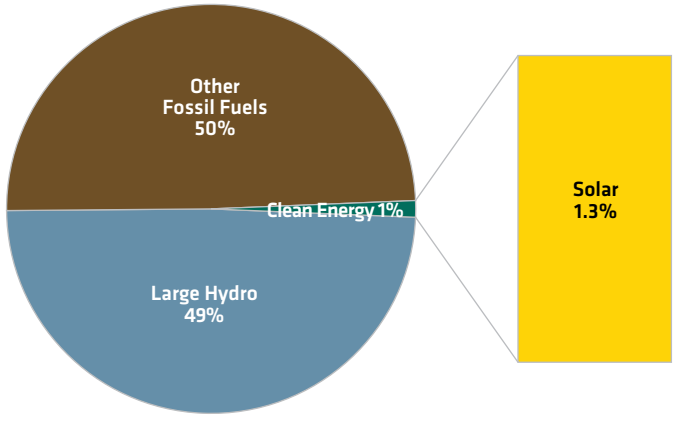
OVERVIEW

Suriname's electricity market is controlled by state-owned Energie Bedrijven Suriname (EBS), a vertically integrated utility that controls transmission, distribution and 33% of the country's generation, according to 2013 data. The remaining share is generated by the state-owned oil company, Staatsolie, and a private mining company, Suralco.

In 2014, Suriname's matrix had 445MW of installed capacity. The bulk (440MW) is divided between thermal (oil and diesel) and large hydro power. Solar makes up the remaining share. All the large hydro capacity comes from the Afobaka hydro plant, owned by Suralco, with 189MW of capacity. Around 85% of Suriname's 541,638 people are connected to the grid. Customers pay, some of the lowest tariffs in Latin America and the Caribbean, thanks to government subsidies.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

384.0MW total installed capacity



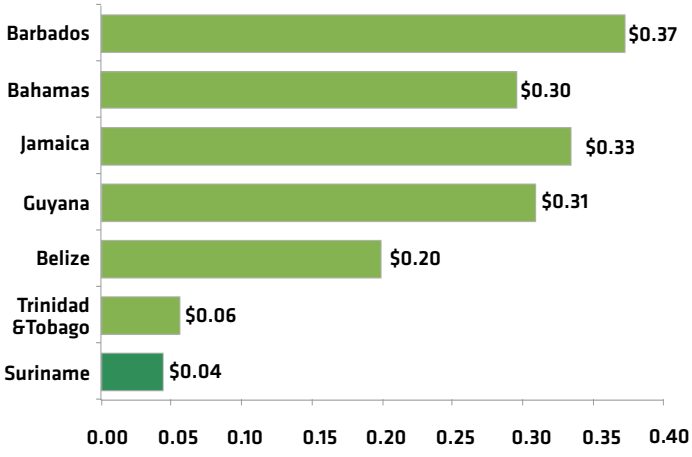
Source: Bloomberg New Energy Finance, N.V. Energiebedrijven Suriname

Suriname's lack of legislation for the energy sector, and its low power prices are the main barriers to development of renewable energy projects in the country. To date there has been limited renewable energy development in the country, and it has been mainly led by large consumers. The first renewable energy large scale plant, a solar project of 5MW, was commissioned in December 2014 and is supplying power to the IAMGold Rosebel gold mine in Brokopondo district.

During 2015 the government has committed to conduct some structural reforms in the energy sector, including the preparation of an Electricity Act and the review of the current power tariff scheme.

Suriname is the third largest oil producer in the Caribbean after Trinidad and Tobago and Cuba. It produces approximately 16,000 barrels of oil per day (bbl/day). Domestic production of crude roughly meets domestic consumption. Refining capacity by Staatsolie is currently being increased to 15,000 bbl/day. Foreign investors or oil companies are allowed in petroleum exploration and production through partnership agreements with Staatsolie. In 2014, 10 international oil companies were exploring in Suriname's offshore waters.

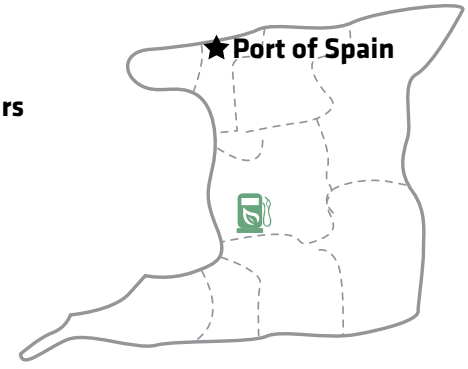
AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/kWh)



Source: Bloomberg New Energy Finance

Trinidad & Tobago

GDP: **$24.4bn**
Five-year economic growth rate: **4.4%**
Population: **1.3m**
Total clean energy investments, 2009-2014: **$0.0m**
Installed power capacity: **2.4GW**
Renewable share: **0.0%**
Total clean energy generation: **0.0GWh**
Top energy authority: **Ministry of Energy and Energy Affairs**



OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
51	48	0.57

PARAMETER	RANKING	SCORE
I. Enabling Framework	52	0.41
II. Clean Energy Investment & Climate Financing	22	0.63
III. Low-Carbon Business & Clean Energy Value Chains	43	0.95
IV. Greenhouse Gas Management Activities	47	0.50

SCORE SUMMARY

Trinidad & Tobago's 0.57 overall score in *Climatescope* this year placed it 48th among all countries, up from 51st position last year, when it scored 0.54.

Trinidad & Tobago's gain was largely tied to improvement on both the Financial Institutions in Clean Energy Indicator and the Value Chains by Clean Energy Sector Indicator of Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Enabling Framework Parameter I, Trinidad & Tobago finished 52nd, up one place from last year. I

On Clean Energy Investment and Climate Financing Parameter II, Trinidad & Tobago scored 0.63, down from 0.87 last year. Its Parameter II ranking was 22nd versus 14th last year.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Trinidad & Tobago's 43rd-place finish was eight places above its 2014 position. The country's 2015 and 2014 Parameter III scores were 0.95 and 0.63, respectively.

On Greenhouse Gas Management Activities Parameter IV, Trinidad & Tobago ranked 47th. Its 0.50 score is a slight improvement over last year's 0.59, when it finished 45th.

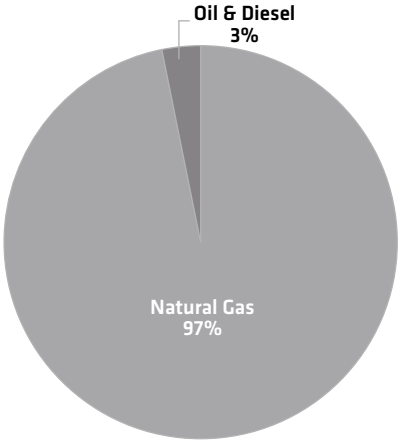
For further information, access www.global-climatescope.org/en/country/trinidad-and-tobago

OVERVIEW

Like many Caribbean countries, Trinidad & Tobago relies on fossil fuels for electricity generation. But unlike many of its neighbors, Trinidad & Tobago is a natural gas producer and exporter. The islands are among the leading natural gas producers in Latin America and the Caribbean, and the oil and gas industry is one of the biggest contributors to the country's $27.5bn economy.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

2GW total installed capacity



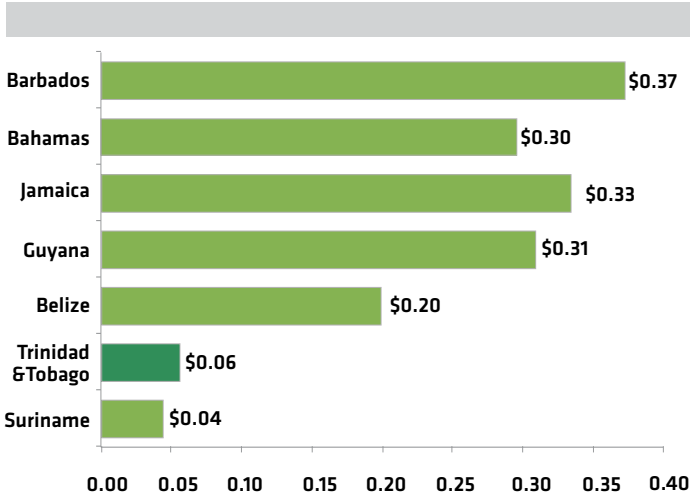
Source: Bloomberg New Energy Finance, Regulated Industries Commission

Trinidad & Tobago's electricity market is controlled by the state-owned Trinidad & Tobago Electricity Commission (T&TEC), the sole transmission and distribution company in the country. It buys electricity from independent power producers who, in 2014, generated 9.1TWh of electricity from natural gas. The Ministry of Energy and Energy Affairs (MEEA) is in charge of monitoring, controlling and regulating the energy and mineral sector in Trinidad & Tobago.

In 2014, Trinidad & Tobago's power matrix represented 2.3GW of installed capacity. The island nation relies on its own natural gas for energy, which represents 97% of total capacity. Oil and diesel accounted for the remaining share.

As a result of the availability of low cost fuels, the islands have some of the lowest electricity prices in Latin America and the Caribbean ($0.05/kWh), which dilutes the economic incentive to support renewable energy deployment.

AVERAGE RETAIL ELECTRICITY PRICES, 2014 ($/kWh)

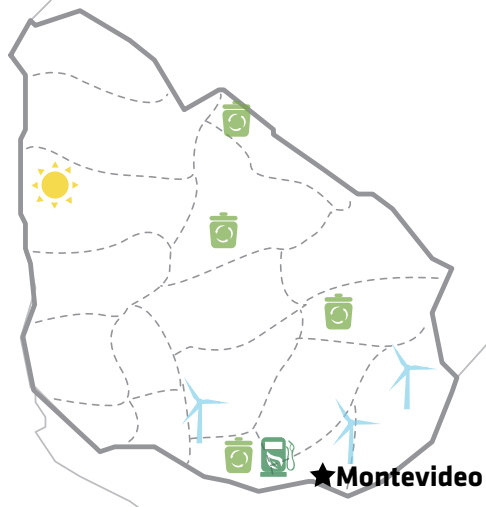


Source: Bloomberg New Energy Finance

On January 2011 the MEEA published its Renewable Energy Policy Framework, which makes recommendations and analysis of policies, technologies and targets for the deployment of renewable energy in Trinidad & Tobago.

On 1 October 2014, the government launched the Sustainable and Renewable Energy Business Incubator. Aside from that, the only renewable energy policy currently in place in Trinidad & Tobago is a "wear and tear" tax allowance of 150% of the expenditure for plant, machinery, parts and materials for use in the manufacture of solar water heaters, the acquisition of solar water heaters, the acquisition of wind turbines and supporting equipment or the acquisition of solar photovoltaic systems and supporting equipment.

Uruguay



GDP: **$57.5bn**
Five-year economic growth rate: **7.4%**
Population: **3.4m**
Total clean energy investments, 2009-2014: **$3.5bn**
Installed power capacity: **3.7GW**
Renewable share: **24.4%**
Total clean Energy generation: **2.0TWh**
Top energy authority: **Ministry of Industry, Energy and Mines**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
6	8	1.69

PARAMETER	RANKING	SCORE
I. Enabling Framework	01	2.04
II. Clean Energy Investment & Climate Financing	09	0.89
III. Low-Carbon Business & Clean Energy Value Chains	29	1.41
IV. Greenhouse Gas Management Activities	07	2.64

SCORE SUMMARY

Uruguay ranked eighth in *Climatescope* 2015, two levels lower than in last year's surves. Its overall score was 1.69.

Uruguay's biggest improvement came on Enabling Framework Parameter I, where it registered gains in the Clean Energy Penetration Category. Those gains were offset by a retreat on Clean Energy Investment and Climate Financing Parameter II, in which the country failed to match its previous performance on the Growth Rate of Clean Energy Investments and Local Investments indicators.

Uruguay was ranked first among all *Climatescope* countries on Enabling Framework Parameter I, with a 2.04. The country was ninth on Parameter I last year, with a 1.43 score.

Uruguay's Parameter I gain was neutralized by its fall from first to ninth position on Clean Energy Investment and Climate Financing Parameter II. Its 2015 Parameter II score was 0.89 versus 2.03 last year.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Uruguay's 2015 score of 1.41 elevated it to 29th place, a six-position improvement from last year. Its aerlier Parameter III score was 1.16.

On Greenhouse Gas Management Activities Parameter IV, Uruguay's 2015 metrics of seventh place at 2.64 were little changed from its 2014 metrics of eighth place at 2.65.

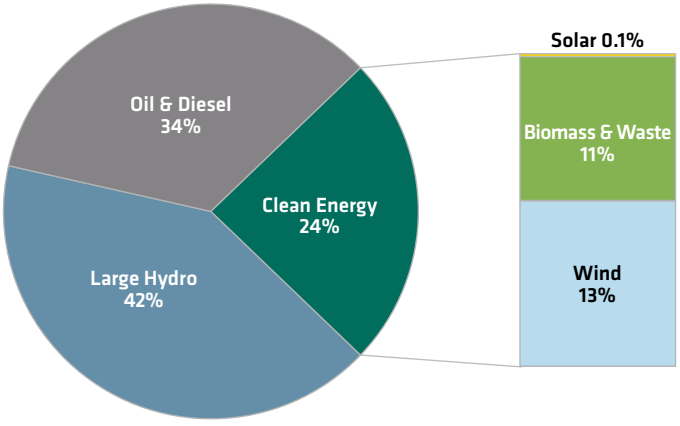
For further information, access www.global-climatescope.org/en/country/uruguay

OVERVIEW

Uruguay has become a dynamic wind market thanks to a set of reverse-auction mechanisms that have contracted 1GW of wind capacity so far. Of this total, 481MW were commissioned by the end of 2014. The government established a 15% clean energy installed capacity target by 2015. As of the end of 2014, Uruguay had achieved the target, with a total clean energy installed capacity of 24% including biomass, solar and wind plants. The country now aims to generate as much as 38% of its electricity needs from wind energy alone by 2017.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

3.7GW total installed capacity



Source: Bloomberg New Energy Finance, Regulated Industries Commission

Uruguay's electricity market is overseen by the Ministry of Industry, Energy and Mines and controlled by state-owned vertically integrated utility Administración Nacional de Usinas y Trasmisiones Eléctricas (UTE). UTE allows the participation of independent power producers (IPPs) through project- or technology-specific tenders, usually for 20-year power purchase agreements.

Uruguay relies primarily on hydroelectric sources to meet its power needs. In 2014, 82% of the 10.3TWh consumed in the country came from large hydro plants, while 13% came from other renewable sources (biomass, solar and wind). The remaining 5% was supplied by plants burning oil, diesel and natural gas.

From 2006 to 2012, UTE held six technology-specific renewable auctions, two for biomass plants and four for wind farms. The biomass auctions failed to contract new capacity due to lack of new available biomass resources. However, the wind tenders contracted all capacity solicited – 1GW. This meant that Uruguay attracted record-levels of investment in the past years. In 2014 alone, $1.2bn was invested in the country's renewable energy sector.

KEY POLICIES

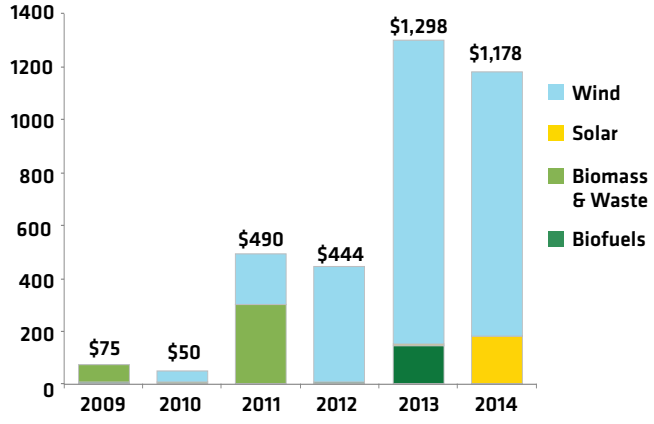
Energy Target	Renewable power to make up 15% of installed capacity by 2015.
Auction	Administración Nacional de Usinas y Trasmisiones Eléctricas has conducted four wind auctions, contracting 684MW of wind capacity for 20 years. Uruguay has also established an auction to contract 200MW of PV.
Biofuels	A 5% biodiesel blend and a 5% ethanol blend is required by 2015.
Tax Incentives	An income tax reduction is available for renewable generators and there is a VAT exemption for wind equipment.
Net Metering	Consumers with their own renewable energy microgeneration systems can connect to the grid, deliver surplus energy and obtain a billing credit.

Source: Bloomberg New Energy Finance Policy Library

In 2013, Uruguay launched a solar tender, aiming to contract around 206MW of photovoltaic utility-scale capacity to be delivered by 2015. As of November 2014, 16 PV projects (199MW), had been awarded contracts. Moving forward, wind investment activity should slow down, while solar projects will attract more funds in the coming years.

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

$3.5bn total cumulative investment



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

SOUTH AMERICA

Venezuela

GDP: **$510bn**

Five-year economic growth rate: **5.3%**

Population: **30.9m**

Total clean energy investments, 2009-2014: **$158.4m**

Installed power capacity: **30.4GW**

Renewable share: **0.3%**

Total clean energy generation: **293.9GWh**

Top energy authority: **Ministry of the People's Power for Electricity**

OVERALL RANKING 2014	OVERALL RANKING 2015	OVERALL SCORE 2015
54	54	0.40

PARAMETER	RANKING	SCORE
I. Enabling Framework	55	0.15
II. Clean Energy Investment & Climate Financing	51	0.17
III. Low-Carbon Business & Clean Energy Value Chains	31	1.34
IV. Greenhouse Gas Management Activities	44	0.60

SCORE SUMMARY

Venezuela ranked 54th overall in this year's *Climatescope*, the same as in the prior year's surves. Its overall 2015 score was 0.40 compared to 0.32 last year.

Venezuela enjoyed a higher ranking on Low-Carbon Business & Clean Energy Value Chains Parameter III due to a better Financial Institutions in Clean Energy Indicator. However, the country's overall ranking was restrained by a lack of progress on other parameters.

Venezuela was ranked last among all *Climatescope* countries on Enabling Framework Parameter I, with a 0.15 score. Its last year ranking was the same on a score of 0.11.

On Clean Energy Investment and Climate Financing Parameter II, Venezuela equaled its last year ranking of 51st. Its 2015 Parameter II score was 0.17 versus 0.19 in 2014.

On Low-Carbon Business & Clean Energy Value Chains Parameter III, Venezuela in 2015 advanced 13 places to 31st with a score of 1.34. Its 2014 score of 0.89 put it in 44th place.

On Greenhouse Gas Management Activities Parameter IV, Venezuela's 2015 metrics of 44th place at 0.60 were unchanged from its 2014 metrics.

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

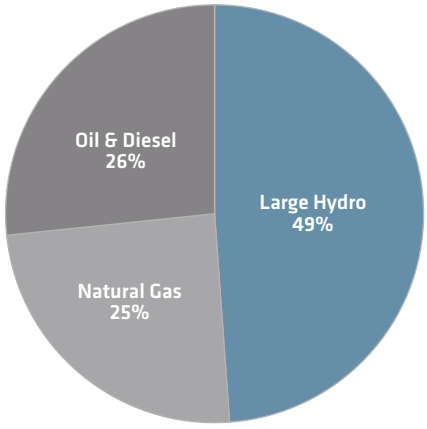
OVERVIEW

Venezuela is one of the world's largest producers and exporters of crude oil. Its power matrix relies on conventional sources, such as large hydro, natural gas and oil & diesel. Hydro generation represents half of its total 30.4GW of installed capacity. The nation's abundant hydro resources, together with subsidies for oil-based generation, leave little space for the development of clean energy projects.

State-owned Corporación Eléctrica Nacional (CORPOELEC), the sole power generation, distribution and transmission company, controls Venezuela's electric system. It was created in 2007 from a merger of 14 regional public and private companies. The Ministerio del Poder Popular para la Energía Eléctrica (MPPEE) is in charge of formulating and implementing energy policies.

INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)

30GW total installed capacity



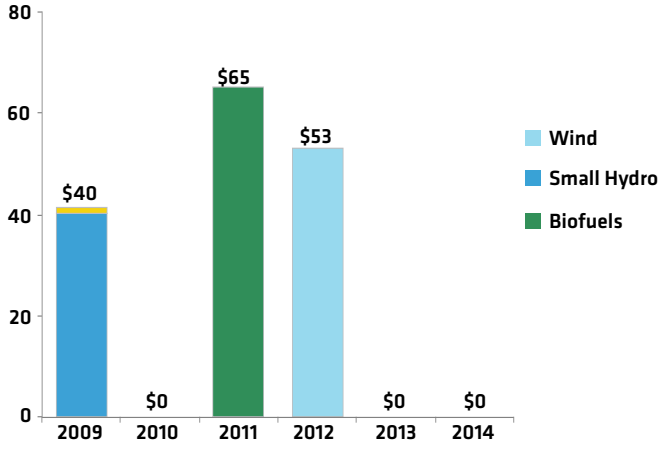
Source: Bloomberg New Energy Finance, Ministerio del Poder Popular para la Energía Eléctrica
Note: Negligible values for wind, small hydro and solar cannot be graphically represented due to scale, see source data for the complete numbers.

After large hydro, the bulk of Venezuela's installed capacity is oil and diesel (8GW) and natural gas (7.4GW). Renewable energy from non-conventional sources, less than 0.2% of the total capacity, is comprised of 25MW of small hydro, 50MW of wind and 2.3MW of solar.

The South American country has almost 100% grid coverage, and its electricity prices are heavily subsidized. In 2014, the average retail rate was $0.02/kWh, the lowest in Latin America and the Caribbean.

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

$158.4m total cumulative investment



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

In 2005, FUNELEC, a technical institution to the electric sector development, created the "Programa Sembrando Luz" to bring solar- and wind-powered electrification to the handful of rural and indigenous areas not connected to the grid. As of September 2012, the program had installed 3,139 renewable energy systems in more than 1,000 communities. In addition, there has been some development on utility-scale projects. In early 2015, a 1MW solar project in the archipelago of Los Roques was commissioned, part of a diesel-PV hybrid plant.

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