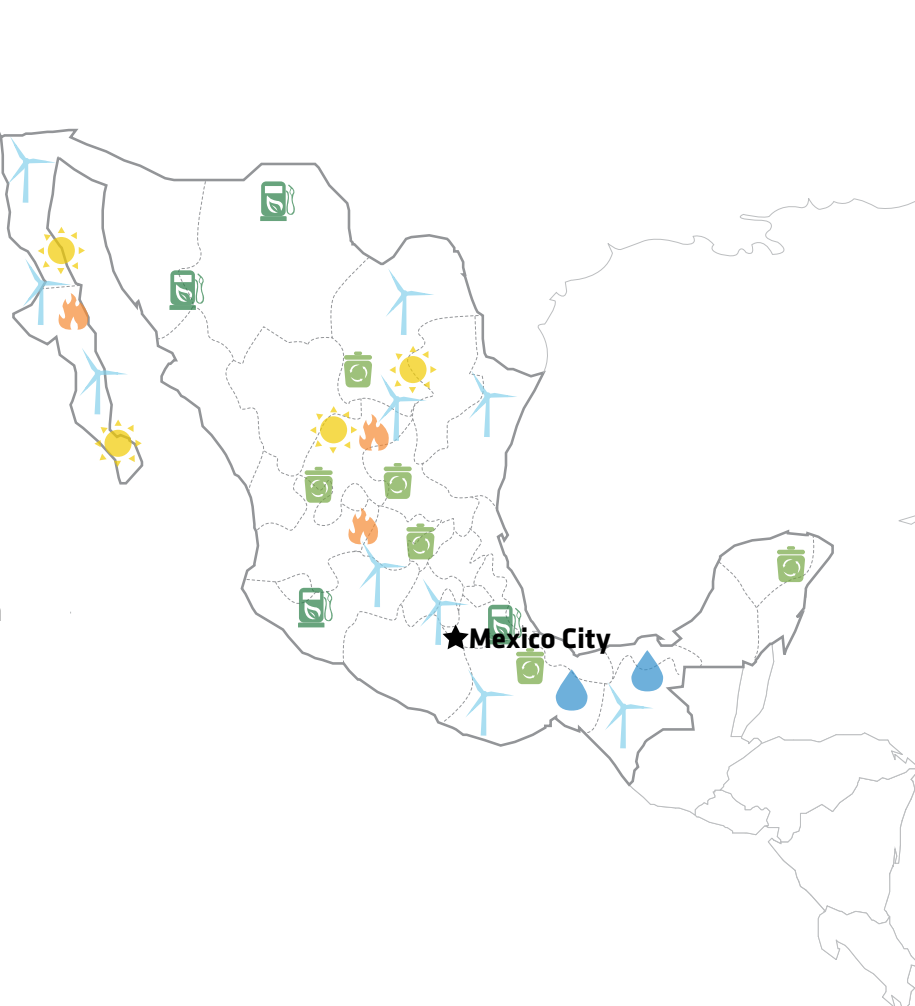


NORTH AMERICA

# Mexico



GDP: **\$1,260.9bn**  
 Five-year economic growth rate: **7%**  
 Population: **122.3m**  
 Total clean energy investments, 2006-2013: **\$11.3bn**  
 Installed power capacity: **64GW**  
 Renewable share: **5.3%**  
 Total clean energy generation: **13,469GWh**  
 Top energy authority: **National Energy Council**

**OVERALL RANKING** 2014  
**8**

**OVERALL SCORE** 2014  
**1.57**

PARAMETER	RANKING	SCORE
<b>I. Enabling Framework</b>	<b>40</b>	<b>0.90</b>
<b>II. Clean Energy Investment &amp; Climate Financing</b>	<b>06</b>	<b>1.12</b>
<b>III. Low-Carbon Business &amp; Clean Energy Value Chains</b>	<b>15</b>	<b>2.82</b>
<b>IV. Greenhouse Gas Management Activities</b>	<b>04</b>	<b>3.02</b>

## SUMMARY

Mexico finished in eighth place out of the 55 developing nations surveyed in Climatescope 2014, with a score of 1.57. When compared solely with Latin American and Caribbean countries, it finished in 4<sup>th</sup> place.

Mexico's energy sector is being reformed to increase competition among generators and make it easier for private power producers to participate, for instance, through the end of the state-owned utility monopoly in the generation segment and creation of a spot market. There is a strong emphasis on increasing the country's natural gas-fired generating capacity; nonetheless clean energy has an important role to play.

Mexico has the second-biggest economy in Latin America and the region's second-largest clean energy market. As of 2013, it had 3.4GW of non-large hydro renewable capacity, representing 5% of the country's 64.5GW total. More is set to come online: in 2013, a total of \$2.2bn was invested in the sector, out of which \$1.6bn was finance for new projects.

The country is also at the forefront of GHG management initiatives. It introduced a carbon tax in January 2014 and is considering an emissions trading system. All of which will help Mexico achieve its 30% emission reduction target by 2020.

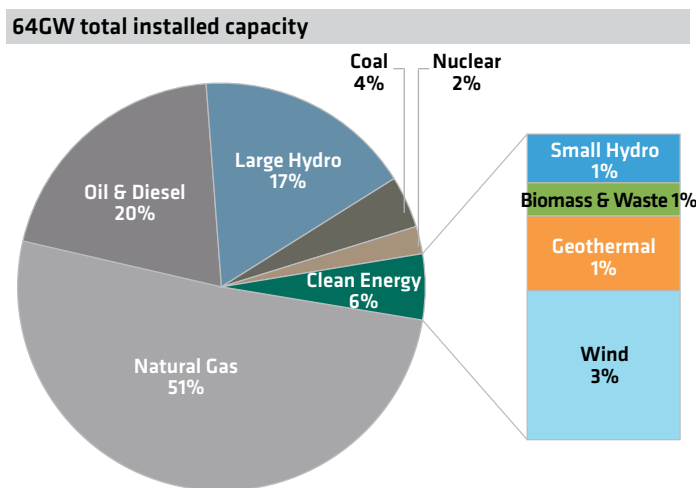
For further information, access [www.global-climatescope.org/mexico](http://www.global-climatescope.org/mexico)

## I. ENABLING FRAMEWORK

Ranking 40 / Score 0.90

Mexico was weakest on Enabling Framework Parameter I, finishing in 40<sup>th</sup> place. The power sector is run by state-owned utility Comisión Federal de Electricidad (CFE), leaving little room for new entrants. However, sweeping reforms are underway that will allow private companies play a much larger role on the generation segment. The proposed changes would establish an independent grid operator, create a wholesale electricity market, plus grant permission to private companies to commercialize and market power, which should unlock opportunities for new power projects in general, but also clean energy. It is expected the changes will become effective beginning in 2016.

### INSTALLED POWER CAPACITY BY SOURCE, 2013 (%)



Source: Bloomberg New Energy Finance, Comisión Federal de Electricidad, Comisión Reguladora de Energía, Secretaría de Energía

While the market rules are redefined, more capacity continues to be added. In 2013, some 2.4GW of natural-gas fired combined cycle plants came online, representing the large majority of total new capacity. Clean energy grew at slower pace in 2013, with only 392MW added (however, this was a 13% increase on 2012). Much of this was wind power – Mexico’s flagship renewable energy sector – as it is competitive with conventional sources. The country is expected to rely heavily on wind to meet its target of 35% of electricity from clean sources (including large hydro and nuclear) by 2024. In 2013, renewables represented 18% of the total 293TWh generated.

### KEY POLICIES

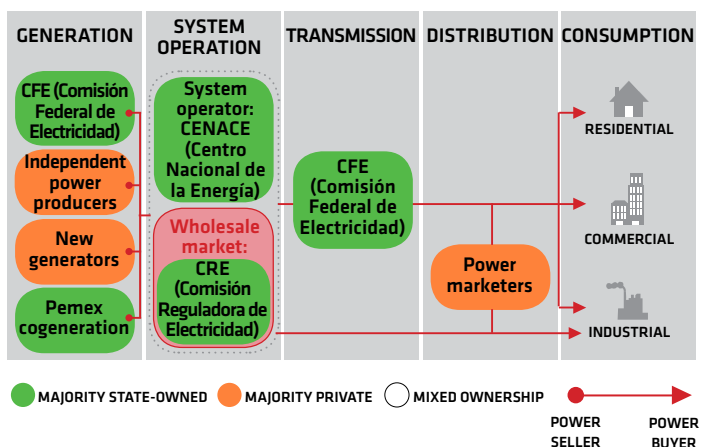
<b>Energy Target</b>	35% of electricity generation coming from renewable sources (including large hydro and nuclear) by 2024.
<b>Debt/Equity Incentive</b>	Funds support clean energy grants for Mexican research institutes and renewable energy electrification programs.
<b>Tax Incentives</b>	Accelerated depreciation for renewable energy projects and machinery.
<b>Net Metering</b>	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

Electricity prices in Mexico have been trending upwards, growing at 4.3% annually between 2006 and 2013. Retail electricity averaged \$0.17/kWh in 2013, marginally below the Latin American average of \$0.18/kWh. However, commercial and high-consumption residential customers pay the higher rates of \$0.23/kWh and \$0.28/kWh, respectively, thus creating a strong incentive to adopt distributed clean energy solutions, such as PV, to take advantage of the country’s net metering policy.

### POWER SECTOR STRUCTURE

Regulator: CRE (Comisión Reguladora de Eletricidad)



Source: Bloomberg New Energy Finance

## II. CLEAN ENERGY INVESTMENT AND CLIMATE FINANCING

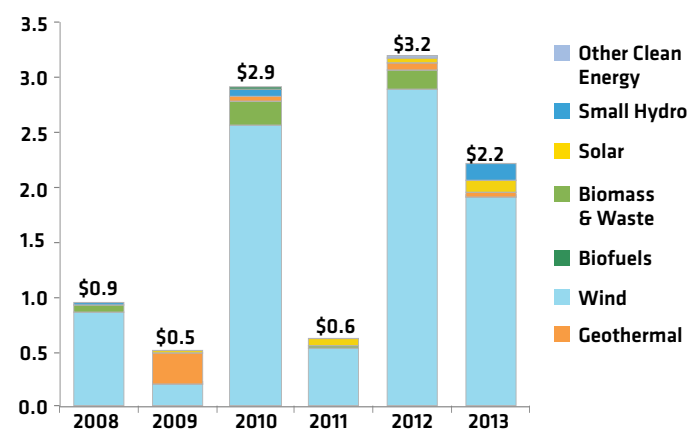
### Ranking 15 / Score 1.12

On Clean Energy Investment Parameter II, Mexico finished 15<sup>th</sup> out of the 55 countries assessed. Since 2006, the sector has attracted a cumulative \$11.2bn, including acquisitions. Historically, the bulk of funds has gone to wind projects (82%), with small hydro (5%), geothermal (5%), biomass and waste (5%) and solar (3%) trailing far behind.

In 2013, the country attracted investment of \$2.2bn, of which \$1.6bn was finance for new projects, with the remaining \$600m being used for M&A transactions. This was 30% lower than the 2012 total, reflecting a note of caution among investors given that the energy reform process has not finished. However, clean energy investment is expected to pick up again in 2014 and may even surpass the record levels seen in 2010.

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

**\$11.3bn total cumulative investment**



Source: Bloomberg New Energy Finance

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

Most of Mexico's new clean energy infrastructure (especially wind) is financed by syndicated loans, whereby a group of lenders (local, foreign and/or multilateral) come together to provide financing for a given plant. One of the largest projects financed last year, a 138MW Phase II wind farm located in Oaxaca, received \$229m in debt financing from five local commercial banks. Such structures help to decrease banks' exposure to risk and lighten the load on local lenders. Last year, the latter financed renewable deals worth \$507m, equal to 31% of the total. Mexico has fairly low interest rates, when compared with the rest of the region – in 2013, the average cost of debt stood at 4.3% and the swap rate at 6%.

### GREEN MICROFINANCE HIGHLIGHTS

#### Summary Green MFI Survey 2014

Green Microfinance Institutions / Total MFIs	5/200
Green Microborrowers	2.500
Total Amount of Green Microloans Disbursed	\$4,857,500
Average Cost of Green Microloans	12.9%
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.

Financing is also available on a smaller scale. Five microfinance institutions offer loans for clean energy products, and have disbursed some \$4.8m to-date. Average interest rates are 12.9%.

### LEAGUE TABLE

**2013 Total Investors** **\$2,203m**

#### Top Three Investors, 2013 (\$m)

1st	Nacional Financiera SNC	\$206m
2nd	Banco Bilbao Vizcaya Argentaria SA	\$147m
3rd	Grupo Financiero Banorte SAB de CV	\$110m

#### Top Three Asset Finance Deals, 2013 (\$m)

Rank	Sector	Project (MW)	Developer	Value
1st	Wind	Gas Natural Fenosa Bii Hioxo Wind Farm (234MW)	Gas Natural	\$388m
2nd	Wind	Renovalia Reserve Piedra Larga Wind Farm Phase II (138MW)	Renovalia Energy	\$348m
3rd	Wind	Enel Dominica Charcas Wind Farm Phase I (100MW)	Enel Green Power	\$196m

Source: Bloomberg New Energy Finance

Notes: Figures refer to asset finance investments committed in 2013 and include balance sheet commitments

### III. LOW-CARBON BUSINESS AND CLEAN ENERGY VALUE CHAINS

Ranking 14 / Score 2.82

On Clean Energy Value Chains Parameter III, Mexico ranked 14<sup>th</sup>. The country is well supplied with financial institutions, including banks, corporate finance institutions and impact funds. It also has a well-developed value chain, with 20 sub-sectors where at least one company is active out of a possible 38 assessed by *Climatescope*. Project developers are active in all six sectors assessed: biofuels, biomass and waste, geothermal, small hydro, solar and wind. The country's biomass value chain is complete, as it includes equipment manufacturing, engineering and operations and maintenance services. PV modules and inverters are produced locally, as are wind towers and blades, the latter it also exports.

In terms of service providers, there is at least one company active in 12 sub-sectors analyzed by *Climatescope*, out of a possible 20, ranging from education and training services to equipment distributors and lawyers specializing in clean energy transactions.

Looking ahead, local clean energy-related business activity is expected to increase following the enactment of legislation in April 2014 to encourage the development of renewable energy, including development of specialized clean energy value chains.





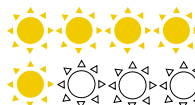

#### FINANCIAL INSTITUTIONS IN CLEAN ENERGY



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

#### CLEAN ENERGY VALUE CHAINS BY SECTOR

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

Source: Bloomberg New Energy Finance

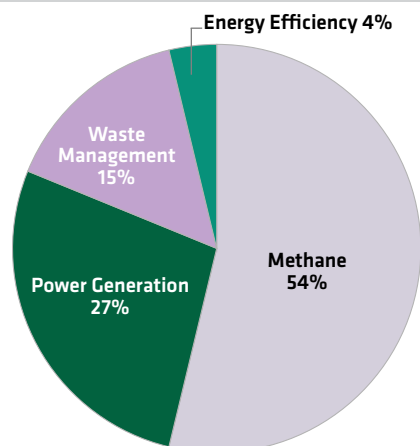
Note: Colored icons represent the number of available subsectors for a given clean energy sector value chain. Bold text, on the right, illustrates at least one organization in that sub-sector is active in the country.

### IV. GREENHOUSE GAS MANAGEMENT ACTIVITIES

Ranking 4 / Score 3.02

#### CDM OFFSET PROJECTS BY SECTOR

190 CDM projects



Source: UNEP Risoe, Bloomberg New Energy Finance

Mexico achieved its best ranking on GHG Management Activities, Parameter IV, taking 4<sup>th</sup> place globally. It is targeting a 30% reduction in emissions by 2020, compared with a business-as-usual baseline, and has introduced a number of initiatives to help it achieve this. The country is part of the Partnership for Market Readiness and is developing a tracking tool for NAMAs. To-date, there are two NAMAs in the implementation phase, and more should follow. There are also 194 GHG offset projects registered, 100 of which are focused on reducing methane emissions.

In January 2014, a national carbon tax was implemented; however, it still lacks final rules on how companies will submit their domestic certified and verified emission reduction credits.

There has also been significant corporate-level activity. In addition to a voluntary GHG emissions registry, some 27 Mexico-based companies have disclosed energy-efficiency policies, while 23 have emission-reduction policies.