

## NORTH AMERICA



# Mexico

GDP: **\$1,283bn**

Five-year economic growth rate: **4.1%**

Population: **123.8m**

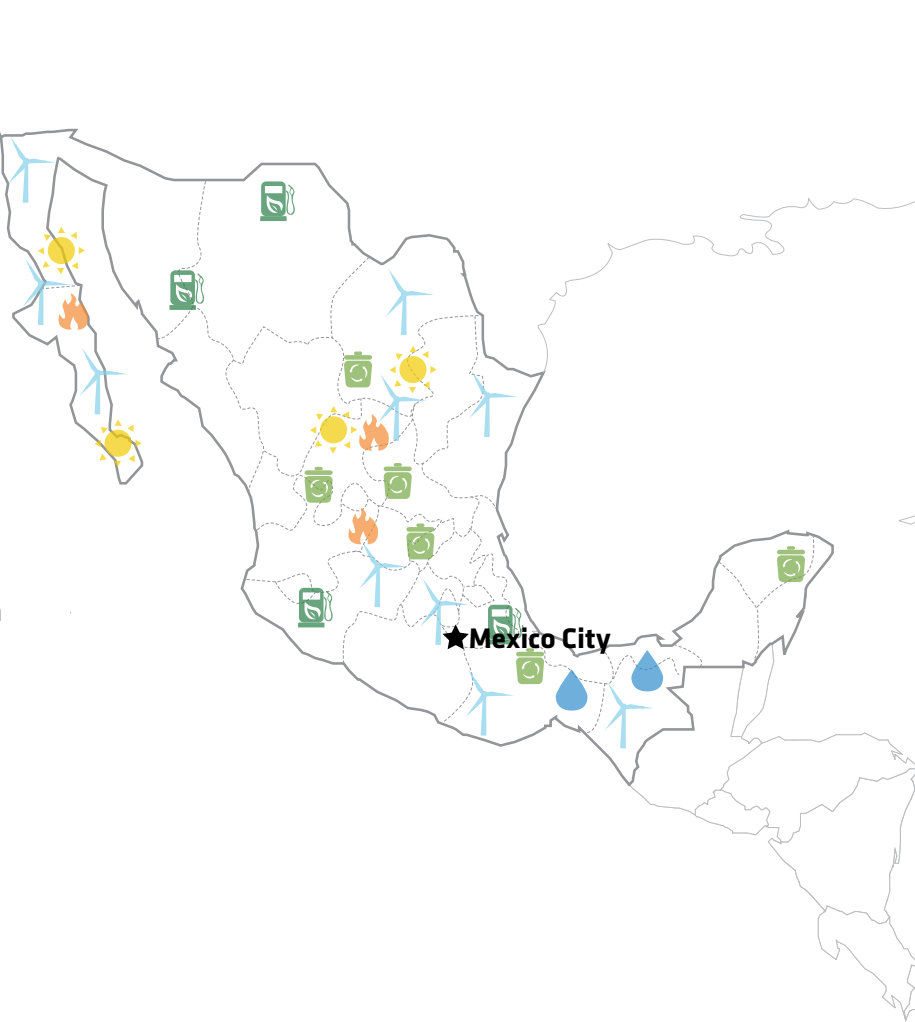
Total clean energy investments, 2009-2014: **\$11.7bn**

Installed power capacity: **64GW**

Renewable share: **5.8%**

Total clean energy generation: **15.9TWh**

Top energy authority: **National Energy Council**



### OVERALL RANKING

2014

2015

8

7

### OVERALL SCORE

2015

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 32<sup>nd</sup> 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 12<sup>th</sup> 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 15<sup>th</sup> 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.

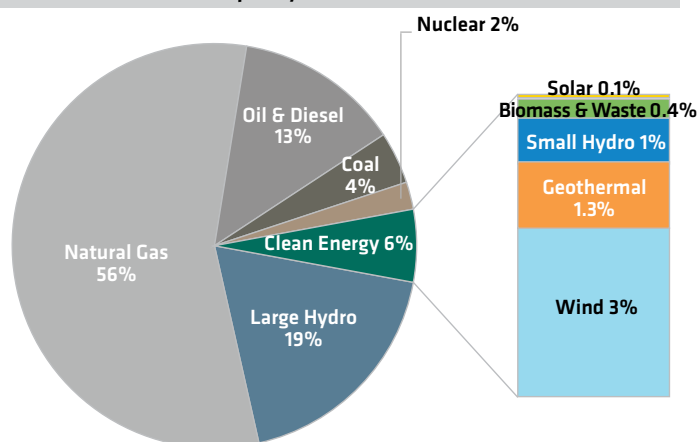
For further information, access [www.global-climatescope.org/en/country/mexico](http://www.global-climatescope.org/en/country/mexico)

## OVERVIEW

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 to play a much larger role in power generation. 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, 2014 (%)

64GW total installed capacity



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 a 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

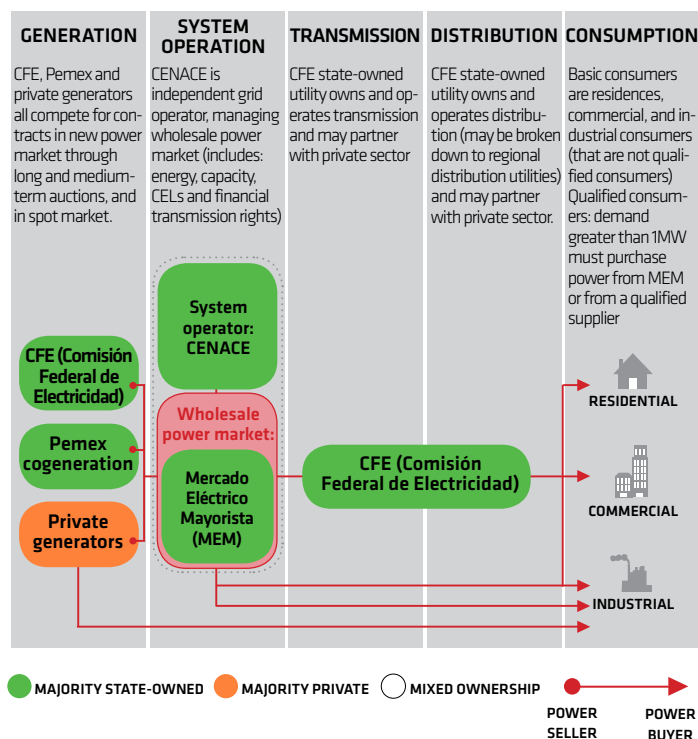
<b>Energy Target</b>	35% of electricity generation coming from renewable sources (including large hydro and nuclear) by 2024.
<b>Debt/Equity Incentive</b>	Funds support clean energy grants for Mexican research institutes and renewable energy electrification programs.
<b>Tax Incentives</b>	Accelerated 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 higher rates of \$0.23/kWh and \$0.28/kWh, respectively, 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 Electricidad)



Source: Bloomberg New Energy Finance

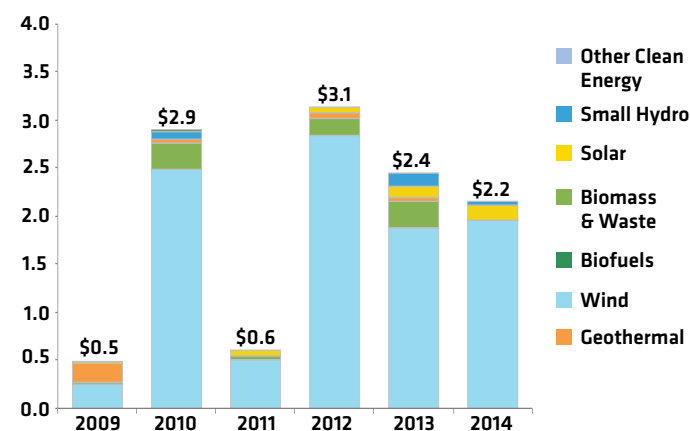
Note: this diagram reflects Mexico power market structure after full implementation of power market reforms, which is expected to be rolled out through to the beginning of 2018.

On Clean Energy Investment Parameter II, Mexico finished 6<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 2014, 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 2015 and may even surpass the record levels seen in 2010.

### 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.

Most of Mexico's new clean energy infrastructure is financed through 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 reduce 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%.

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

**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	Wind	Cemex Ventika Wind Portfolio	Cemex and Fisterra Energy	\$699m
2nd	Wind	Sierra Juarez Wind Farm	Ienova and InterGen	\$344m
3rd	Wind	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

On Clean Energy Value Chains Parameter III, Mexico ranked 15<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.

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

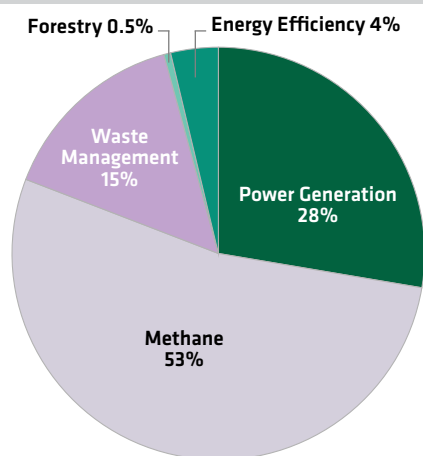
✓ Banks	✓ Corporate Finance
Funds	✓ Impact Funds
Private Equity/Venture Capital	

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

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.

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.