

RENEWABLES INTERACTIVE MAP

COUNTRY PROFILE: Guatemala

1. SUMMARY

1.1 Country Overview

Country size	108 889 km ²
Population	13 276 517
GDP	46 900 000 000
Energy production	5 400 ktoe/year
Energy consumption	6 825 ktoe/year

1.3 Policies Overview Table

Financial Incentives			Public Financing		Regulatory Policies				
Capital subsidy, grant, or rebate	Tax incentives	Energy production payment	Public investment, loans, or	Public competitive bidding	Feed-in tariff	Utility quota obligation	Net metering	Obligation and mandate	Tradable renewable energy certificate
	✓		✓	✓			✓	✓	

1.4 RE Status Overview (non-technology specific)

	Primary Energy	Final Energy Consumption	Electricity Production	Heating/Cooling Production	Transportation	RE Installed Capacity
Share	92.1 % 2010	24 % 2012	11 % 2012			636 MW 2011
			23 % 2011			1.2 GW 2010
			62.6 % 2010			1.1 GW 2009
			58.7 % 2009			

* = Conflicting data exists (see respective table below)

2. Renewable Energy Policies

2.1 Net metering

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific		Net metering exists.	2013	Global Status Report (GSR) 2014. "Country Profile Guatemala"
Non-Sector specific	Non-Technology specific		Net metering exists.	2012	Global Status Report (GSR) 2013. "Country Profile Guatemala"

2.2 Obligation and mandate

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific		Biofuels mandates exist.	2013	Global Status Report (GSR) 2014. "Country Profile Guatemala"

Transport	Biofuels		Biofuels mandate was introduced.	2012	Global Status Report (GSR) 2013. "Country Profile Guatemala"
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2.3 Public competitive bidding

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific		Public competitive bidding exists.	2013	Global Status Report (GSR) 2014. "Country Profile Guatemala"
Electricity	Wind	101 MW	Wind power capacity contracted.	2012	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Hydropower	221 MW	Small hydropower capacity contracted.	2012	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Solar PV	55 MW	Solar PV capacity contracted.	2012	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Solid Biomass	16 MW	Biomass capacity contracted.	2012	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Non-Sector specific	Biofuels	130 million liters	Total ethanol production.	2012	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"

2.4 Public investment, loans, or financing

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific	433,000,000 USD	Total clean energy investments.	2012	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Non-Sector specific	Non-Technology specific	0 USD	Total clean energy investments.	2012	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Non-Sector specific	Non-Technology specific	109,000,000 USD	Total clean energy investments.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Non-Sector specific	Non-Technology specific	53,000,000 USD	Total clean energy investments.	2010	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Non-Sector specific	Non-Technology specific	87,000,000 USD	Total clean energy investments.	2009	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"

2.5 Tax incentives

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific		Tax credits exist.	2013	Global Status Report (GSR) 2014. "Country Profile Guatemala"

Non-Sector specific	Non-Technology specific		Tax reductions exist.	2013	Global Status Report (GSR) 2014. "Country Profile Guatemala"
Non-Sector specific	Non-Technology specific		Investment or other tax credits exist.	2012	Global Status Report (GSR) 2013. "Country Profile Guatemala"
Non-Sector specific	Non-Technology specific		Sales tax, energy tax, excise tax, or VAT reductions exist.	2012	Global Status Report (GSR) 2013. "Country Profile Guatemala"

3. Renewable Energy Targets

3.1 Electricity

Sector	Technology	Value	Description	Year	Reference
Electricity	Non-Technology specific	70 %	Targeted share of renewables in electricity generation.	2022	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Electricity	Non-Technology specific	60.0 %	Targeted share of renewables in electricity generation.	2022	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."

3.2 Final energy

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific	480 MW	Targeted total installed renewable energy capacity.	2015	Global Status Report (GSR) 2012. "Country Profile Guatemala"

3.3 Not specified

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific		Renewable energy targets exist.	2013	Global Status Report (GSR) 2014. "Country Profile Guatemala"

4. Renewable Energy Shares

4.1 Electricity production

Sector	Technology	Value	Description	Year	Reference
Electricity	Non-Technology specific	11 %	Share of renewables in electricity generation.	2012	Global Status Report (GSR) 2014. "Country Profile Guatemala" provided by Gonzalo Bravo, Fundacion Bariloche
Electricity	Non-Technology specific	64.4 %	Share of renewables in electricity generation.	2012	Global Status Report (GSR) 2014. "Country Profile Guatemala" provided by Gonzalo Bravo, Fundacion Bariloche
Electricity	Geothermal	3.0 %	Share of geothermal in electricity generation.	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	29.1 %	Share of solid biomass in electricity generation.	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Hydropower	31.4 %	Share of hydropower in electricity generation.	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"

Electricity	Non-Technology specific	63.5 %	Share of renewables in electricity generation.	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	48 %	Share of renewables in electricity generation capacity.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Non-Technology specific	23 %	Share of renewables in electricity generation capacity.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Hydropower	25 %	Share of large hydropower in electricity generation capacity.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Hydropower	10 %	Share of small hydropower in electricity generation capacity.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Solid Biomass	11 %	Share of biomass in electricity generation capacity.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Geothermal	2 %	Share of geothermal in electricity generation capacity.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "Climatescope 2013"
Electricity	Non-Technology specific	62.6 %	Share of renewables in electricity generation.	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	76.0 %	Share of renewables in electricity generation.	2010	Global Status Report (GSR) 2013. "Country Profile Guatemala"
Electricity	Non-Technology specific	58.7 %	Share of renewables in electricity generation.	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"

4.2 Final energy

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific	24 %	Share of renewables in final energy consumption.	2012	Global Status Report (GSR) 2014. "Country Profile Guatemala" provided by Gonzalo Bravo, Fundacion Bariloche
Non-Sector specific	Non-Technology specific	59.7 %	Share of renewables in final energy consumption.	2012	Global Status Report (GSR) 2014. "Country Profile Guatemala" provided by Gonzalo Bravo, Fundacion Bariloche

4.3 Primary energy

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Geothermal	3.1 %	Share of geothermal in total primary energy supply.	2010	Organizacion Latinamericana de Energia (OLADE). "Manual de Estadísticas Energéticas"

Non-Sector specific	Hydropower	5.4 %	Share of hydro in total primary energy supply.	2010	Organisacion Latinamericana de Energia (OLADE). "Manual de Estadísticas Energéticas"
Non-Sector specific	Non-Technology specific	92.1 %	Share of renewables in total primary energy supply.	2010	Organisacion Latinamericana de Energia (OLADE). "Manual de Estadísticas Energéticas"
Non-Sector specific	Solid Biomass	14.5 %	Share of solid biomass (cane products) in total primary energy supply.	2010	Organisacion Latinamericana de Energia (OLADE). "Manual de Estadísticas Energéticas"
Non-Sector specific	Non-Technology specific	94.4 %	Share of renewables in total primary energy supply.	2010	Global Status Report (GSR) 2013. "Country Profile Guatemala"

5. Installed Capacity

5.1 Installed capacity					
Sector	Technology	Value	Description	Year	Reference
Electricity	Hydropower	1,006.5 MW	Total installed hydropower capacity.	2012	Global Status Report (GSR) 2014. "Country Profile Guatemala" provided by Gonzalo Bravo, Fundación Bariloche
Electricity	Hydropower	289 MW	Total installed small hydropower capacity.	2012	Global Status Report (GSR) 2014. "Country Profile Guatemala" provided by Gonzalo Bravo, Fundación Bariloche
Non-Sector specific	Geothermal	49.2 MW	Total installed geothermal capacity.	2012	Global Status Report (GSR) 2014. "Country Profile Guatemala" provided by Gonzalo Bravo, Fundación Bariloche
Non-Sector specific	Geothermal	52 MW	Total cumulative installed geothermal power capacity.	2011	BP. "BP Statistical Review of World Energy June 2012"
Electricity	Non-Technology specific	64.0 %	Share of renewables in electricity generation.	2011	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."
Electricity	Non-Technology specific	636 MW	Total installed renewables electricity generation capacity.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "ClimateScope 2013"
Non-Sector specific	Non-Technology specific	371.5 MW	Total installed biomass capacity.	2010	Comisión Económica para América Latina (CEPAL). "Istmo Centroamérica: Estadísticas del Subsector Eléctrico"
Non-Sector specific	Geothermal	49.0 MW	Total installed geothermal capacity.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Non-Sector specific	Non-Technology specific	543.3 MW	Total installed renewable capacity.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Non-Sector specific	Geothermal	52 MW	Total cumulative installed geothermal power capacity.	2010	BP. "BP Statistical Review of World Energy June 2012"

Electricity	Non-Technology specific	1.2 GW	Total installed renewable electricity capacity.	2010	U.S. Energy Information Administration (EIA). "International Energy Statistics"
Electricity	Geothermal	49.2 MW	Total installed geothermal capacity.	2010	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."
Electricity	Geothermal	381.0 MW	Total installed solid biomass capacity.	2010	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."
Electricity	Geothermal	52.2 MW	Total installed solar PV capacity.	2010	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."
Electricity	Hydropower	853.1 MW	Total installed hydropower capacity.	2010	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."
Electricity	Hydropower	902.3 MW	Total installed hydropower capacity.	2010	Global Status Report (GSR) 2013. "Country Profile Guatemala"
Electricity	Solid Biomass	383.5 MW	Total installed bagasse capacity.	2010	Global Status Report (GSR) 2013. "Country Profile Guatemala"
Non-Sector specific	Geothermal	52 MW	Total cumulative installed geothermal power capacity.	2009	BP. "BP Statistical Review of World Energy June 2012"
Electricity	Non-Technology specific	1.1 GW	Total installed renewable electricity capacity.	2009	U.S. Energy Information Administration (EIA). "International Energy Statistics"
Electricity	Hydropower	774.2 MW	Total installed hydropower capacity.	2009	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."

6. Energy Production

6.1 Energy production					
Sector	Technology	Value	Description	Year	Reference
Electricity	Hydropower	3.0 TWh	Hydropower electricity generation.	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Geothermal	289.0 GWh	Geothermal electricity generation.	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	2.8 TWh	Biomass electricity generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	6.0 TWh	Renewable electricity generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"

Electricity	Non-Technology specific	5,205.0 GWh	Total renewable electricity generation.	2011	Comisión Nacional de Energía Eléctrica. "El Contexto de la Energía Renovable en Guatemala y la Matriz Energética del País."
Electricity	Non-Technology specific	1.96 TWh	Total renewables electricity generation.	2011	The Multilateral Investment Fund (MIF), Bloomberg New Energy Finance. (BNEF) "ClimateScope 2013"
Electricity	Non-Technology specific	3,302.00 GWh	Electricity production from non-conventional energy.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Non-Sector specific	Solid Biomass	5.9 Million Tonnes	Total biomass production.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Non-Sector specific	Solid Biomass	0.05 Million Tonnes	Total charcoal production.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Non-Sector specific	Solid Biomass	5.8 Million Tonnes	Total firewood production.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Electricity	Hydropower	2,760.50 GWh	Total hydro-electricity production.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Non-Sector specific	Solid Biomass	4.06 Million Tonnes	Total fire wood final consumption.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Electricity	Solid Biomass	1.29 Million Tonnes	Total firewood input in electricity power plants.	2010	Global Status Report (GSR) 2012. "Country Profile Guatemala"
Electricity	Geothermal	289.0 GWh	Geothermal electricity generation.	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	2.8 TWh	Biomass electricity generation	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	5.8 TWh	Renewable electricity generation	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Transport	Biofuels	92.9 million liters	Produced bioethanol for transport.	2009	Dufey A. & Stange D. - CEPAL. "Estudio regional sobre la economía de los biocombustibles en 2010: temas clave para los países de América Latina y el Caribe"
Electricity	Hydropower	2.1 TWh	Hydropower electricity generation.	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Geothermal	289.0 GWh	Geothermal electricity generation.	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	3.1 TWh	Biomass electricity generation	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"