

RENEWABLES INTERACTIVE MAP

COUNTRY PROFILE: Croatia

1. SUMMARY

1.1 Country Overview

Country size	56 594 km ²
Population	4 489 409
GDP	62 493 200 000
Energy production	3 946 ktoe/year
Energy consumption	7 285 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	11.8 % 2011	15.1 % 2012	45.7 % 2011			1.9 GW 2010
	14.5 % 2010	15.4 % 2011	60.5 % 2010			1.831 GW 2009
		14.3 % 2010	39 % 2009			
		10.9 % 2009				

* = Conflicting data exists (see respective table below)

2. Renewable Energy Policies

2.1 Capital subsidy, grant, or rebate

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific		Capital subsidies exist.	2012	Global Status Report (GSR) 2013. "Country Profile Croatia"
Non-Sector specific	Non-Technology specific	1,580 EUR	Subsidy for renewable energy.	2012	Solar Thermal World. "Croatia: Residential Investment Subsidies," 1 April 2013

2.2 Feed-in tariff

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

Electricity	Wind	0.72 HRK/kWh	FIT for wind power.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Wind	0.71 HRK/kWh	FIT for wind power.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Solar PV	1.10 HRK/kWh	FIT for solar PV.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Solar PV		FIT for solar PV.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Solar PV	1.10 HRK/kWh	FIT for solar PV.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Solar PV	2.002 HRK/kWh	FIT for solar PV.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Geothermal	1.20 HRK/kWh	FIT for geothermal power.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Biogas	1.42 HRK/kWh	FIT for agricultural waste biogas.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Biogas	1.20 HRK/kWh	FIT for agricultural waste biogas.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Biogas	1.12 HRK/kWh	FIT for agricultural waste biogas.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Biogas		FIT for landfill biogas.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Hydropower	1.20 HRK/kWh	FIT for small hydropower.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Hydropower	0.80 HRK/kWh	FIT for small hydropower.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Hydropower	0.60 HRK/kWh	FIT for small hydropower.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Hydropower	1.00 HRK/kWh	FIT for hydropower.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Hydropower	0.70 HRK/kWh	FIT for hydropower.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Hydropower	0.57 HRK/kWh	FIT for hydropower.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Solid Biomass	1.30 HRK/kWh	FIT for biomass.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013
Electricity	Solid Biomass	1.20 HRK/kWh	FIT for biomass.	2013	Res Legal. "Feed-in tariff," updated 11 November 2013

2.3 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 Croatia"

2.4 Tax incentives

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific		Public investment exists.	2012	Global Status Report (GSR) 2013. "Country Profile Croatia"

3. Renewable Energy Targets

3.1 Electricity

Sector	Technology	Value	Description	Year	Reference
Electricity	Wind	400 MW	Targeted wind power installed capacity	2030	Global Status Report (GSR) 2011. "Country Profile Croatia"
Electricity	Non-Technology specific	35 %	Targeted share of renewables in total electricity production.	2020	Austrian Energy Agency. "Renewable Energy Action Plan. Croatia Country Profile"
Electricity	Non-Technology specific	35 %	Targeted share of renewables in electricity generation.	2020	Austrian Energy Agency. "Croatia Country Profile"

3.2 Final energy

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific	20 %	Targeted share of renewables in final consumption	2020	Global Status Report (GSR) 2012. "Country Profile Croatia"
Non-Sector specific	Non-Technology specific	20 %	Targeted share of renewables in gross final energy consumption.	2020	IRENA. "Renewable Energy Action Plans and Regulations to Harmonise with EU Directives"
Non-Sector specific	Non-Technology specific	15.8 %	Targeted share of renewables in final energy consumption.	2013	Austrian Energy Agency. "Renewable Energy Action Plan. Croatia Country Profile"

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 Croatia"

3.4 Transport

Sector	Technology	Value	Description	Year	Reference
Transport	Biofuels	10 %	Targeted share of renewables in transport.	2020	Bloomberg New Energy Finance. "Week in Review Vol. VI, Issue 201," 17 September 2013.
Transport	Biofuels	5.75 %	Targeted share of total annual consumption of biofuels (gasoline and diesel fuel) in the transport sector.	2010	AgriPolicy. "Analysis of Renewable Energy and its Impact on Rural Development in Croatia"

4. Renewable Energy Shares

4.1 Electricity consumption

Sector	Technology	Value	Description	Year	Reference
Electricity	Non-Technology specific	33.4 %	Share of renewables in gross electricity consumption.	2009	European Commission. "Eurostat Statistics," 2013.

4.2 Electricity production

Sector	Technology	Value	Description	Year	Reference
Electricity	Non-Technology specific	45.7 %	Share of renewables in electricity generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Hydropower	42.6 %	Share of hydropower in electricity generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Wind	1.8 %	Share of wind power in electricity generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	0.3 %	Share of biomass in electricity generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	46.4 %	Share of renewables in electricity generation.	2011	Global Status Report (GSR) 2013. "Country Profile Croatia"
Electricity	Non-Technology specific	46 %	Share of renewables in electricity generation.	2011	Global Status Report (GSR) 2014. "Country Profile Croatia" provided by Ulrike Radosch, ENERCEE
Electricity	Non-Technology specific	60.5 %	Share of renewables in electricity generation	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	61 %	Share of renewables in electricity generation.	2010	Global Status Report (GSR) 2013. "Country Profile Croatia"
Electricity	Non-Technology specific	55 %	Share of renewables in electricity generation	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	54 %	Share of renewables in electricity generation	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Non-Technology specific	39 %	Share of renewables in electricity generation.	2009	Austrian Energy Agency. "Croatia Country Profile"

4.3 Final energy

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific	16.8 %	Share of renewables in gross final energy consumption.	2012	Eurostat. "Share of renewable energy in gross final energy consumption"
Non-Sector specific	Non-Technology specific	15.1 %	Share of renewables in final energy consumption.	2012	Austrian Energy Agency. "Renewable Energy Action Plan. Croatia Country Profile"
Non-Sector specific	Non-Technology specific	15.4 %	Share of renewables in gross final energy consumption.	2011	Eurostat. "Share of renewable energy in gross final energy consumption"
Non-Sector specific	Non-Technology specific	14.3 %	Share of renewables in gross final energy consumption.	2010	Eurostat. "Share of renewable energy in gross final energy consumption"
Non-Sector specific	Non-Technology specific	61 %	Share of renewables in electricity generation.	2010	Global Status Report (GSR) 2012. "Country Profile Croatia"
Non-Sector specific	Non-Technology specific	13.1 %	Share of renewables in gross final energy consumption.	2009	Eurostat. "Share of renewable energy in gross final energy consumption"
Non-Sector specific	Non-Technology specific	10.9 %	Share of renewables in final energy supply.	2009	Global Status Report (GSR) 2012. "Country Profile Croatia"

Non-Sector specific	Non-Technology specific	11 %	Share of renewables in final energy supply.	2009	Global Status Report (GSR) 2011. "Country Profile Croatia"
Non-Sector specific	Non-Technology specific	9.3 %	Share of renewables in final energy supply.	2009	Global Status Report (GSR) 2011. "Country Profile Croatia"
Non-Sector specific	Non-Technology specific	12.6 %	Share of renewables in gross final energy consumption.	2009	IRENA. "Renewable Energy Action Plans and Regulations to Harmonise with EU Directives"

4.4 Primary energy

Sector	Technology	Value	Description	Year	Reference
Non-Sector specific	Non-Technology specific	11.8 %	Share of renewables in total primary energy supply.	2011	Global Status Report (GSR) 2013. "Country Profile Croatia"
Non-Sector specific	Solar PV	0.4 %	Share of solar energy in total renewables.	2010	Eurostat. "Renewable energy statistics"
Non-Sector specific	Solid Biomass	39.9 %	Share of biomass & waste in total renewables.	2010	Eurostat. "Renewable energy statistics"
Non-Sector specific	Geothermal	0.6 %	Share of geothermal energy in total renewables.	2010	Eurostat. "Renewable energy statistics"
Non-Sector specific	Hydropower	58.1 %	Share of hydropower energy in total renewables.	2010	Eurostat. "Renewable energy statistics"
Non-Sector specific	Wind	1 %	Share of wind energy in total renewables	2010	Eurostat. "Renewable energy statistics"
Non-Sector specific	Non-Technology specific	14.5 %	Share of renewables in total primary energy supply.	2010	Global Status Report (GSR) 2013. "Country Profile Croatia"
Non-Sector specific	Solar PV	0.5 %	Share of solar energy in total renewables.	2009	Eurostat. "Renewable energy statistics"
Non-Sector specific	Solid Biomass	42.62 %	Share of biomass & waste in total renewables.	2009	Eurostat. "Renewable energy statistics"
Non-Sector specific	Geothermal	0.3 %	Share of geothermal energy in total renewables.	2009	Eurostat. "Renewable energy statistics"
Non-Sector specific	Hydropower	56.21 %	Share of hydropower energy in total renewables.	2009	Eurostat. "Renewable energy statistics"
Non-Sector specific	Wind	0.49 %	Share of wind energy in total renewables.	2009	Eurostat. "Renewable energy statistics"

4.5 Transport

Sector	Technology	Value	Description	Year	Reference
Transport	Non-Technology specific	0.1 %	Share of renewables in transport.	2011	Global Status Report (GSR) 2013. "Country Profile Croatia"
Transport	Biofuels	0.8 %	Share of biofuels in road transportation	2010	World Energy Council (WEC). "Energy Efficiency Indicators"
Transport	Biofuels	0.4 %	Share of renewable energy in transport fuel consumption	2010	Eurostat. "Share of renewable energy in fuel consumption of transport"
Transport	Non-Technology specific	0.1 %	Share of renewables in transport.	2010	Global Status Report (GSR) 2013. "Country Profile Croatia"
Transport	Biofuels	0.4 %	Share of renewable energy in transport fuel consumption	2009	Eurostat. "Share of renewable energy in fuel consumption of transport"

5. Installed Capacity

5.1 Installed capacity

Sector	Technology	Value	Description	Year	Reference
Electricity	Wind	302.0 MW	Total installed wind power capacity.	2013	World Wind Energy Association (WWEA). "World Wind Energy Report 2013 - List of Countries and Regions using Wind Power in 2013"
Electricity	Wind	122.0 MW	Added installed wind power capacity.	2013	World Wind Energy Association (WWEA). "World Wind Energy Report 2013 - List of Countries and Regions using Wind Power in 2013"
Electricity	Solar PV	17.2 MWp	Added installed solar PV capacity.	2013	Eurobserv'er. "Photovoltaic Barometer," April 2014
Electricity	Solar PV	21.2 MWp	Total installed on-grid solar PV capacity.	2013	Eurobserv'er. "Photovoltaic Barometer," April 2014
Electricity	Solar PV	0.5 MWp	Total installed off-grid solar PV capacity.	2013	Eurobserv'er. "Photovoltaic Barometer," April 2014
Electricity	Solar PV	21.7 MWp	Total installed solar PV capacity.	2013	Eurobserv'er. "Photovoltaic Barometer," April 2014
Electricity	Wind	298.8 MW	Total installed wind power capacity.	2013	Eurobserv'er. "Wind Energy Barometer," February 2014
Electricity	Wind	119.2 MW	Added installed wind power capacity.	2013	Eurobserv'er. "Wind Energy Barometer," February 2014
Heating/Cooling	Solar heating/cooling	101.90 MWth	Total installed glazed solar thermal capacity.	2013	European Solar Thermal Industry Federation (ESTIF). "Solar Thermal Markets in Europe. Trends and Market Statistics 2013," June 2014
Heating/Cooling	Solar heating/cooling	145,565 m ²	Total installed glazed solar thermal collector area.	2013	European Solar Thermal Industry Federation (ESTIF). "Solar Thermal Markets in Europe. Trends and Market Statistics 2013," June 2014
Heating/Cooling	Solar heating/cooling	20,900 m ²	Added installed glazed solar thermal collector area.	2013	European Solar Thermal Industry Federation (ESTIF). "Solar Thermal Markets in Europe. Trends and Market Statistics 2013," June 2014
Heating/Cooling	Solar heating/cooling	21,000 m ²	Added installed flat plate-glazed solar thermal collectors area.	2013	EurObserv'ER. "Solar Thermal and Concentrated Solar Power Barometer," May 2014
Heating/Cooling	Solar heating/cooling	2,500 m ²	Added installed vacuum-glazed solar thermal collectors area.	2013	EurObserv'ER. "Solar Thermal and Concentrated Solar Power Barometer," May 2014
Heating/Cooling	Solar heating/cooling	23,500 m ²	Added installed solar thermal collectors area.	2013	EurObserv'ER. "Solar Thermal and Concentrated Solar Power Barometer," May 2014
Heating/Cooling	Solar heating/cooling	16.5 MWth	Added installed solar thermal collectors capacity.	2013	EurObserv'ER. "Solar Thermal and Concentrated Solar Power Barometer," May 2014

Heating/Cooling	Solar heating/cooling	119,600 m ²	Total installed solar thermal collectors area.	2013	EurObserv'ER. "Solar Thermal and Concentrated Solar Power Barometer," May 2014
Heating/Cooling	Solar heating/cooling	83.7 MWth	Total installed solar thermal collectors capacity.	2013	EurObserv'ER. "Solar Thermal and Concentrated Solar Power Barometer," May 2014
Electricity	Wind	180 MW	Total installed wind power capacity.	2012	WWEA. "2012 Annual Report"
Electricity	Wind	48 MW	Added installed wind power capacity.	2012	WWEA. "2012 Annual Report"
Electricity	Wind	180 MW	Total installed wind power capacity.	2012	Global Status Report (GSR) 2014. "Country Profile Croatia" provided by Ulrike Radosch, ENERCEE

6. Energy Production

6.1 Energy production					
Sector	Technology	Value	Description	Year	Reference
Electricity	Solar PV	12.3 GWh	Total solar PV electricity generation.	2013	Eurobserv'er. "Photovoltaic Barometer," April 2014
Electricity	Wind	494 GWh	Total wind power electricity generation.	2013	Eurobserv'er. "Wind Energy Barometer," February 2014
Transport	Biofuels	0.9 ktoe	Amount of bioethanol consumption for transport.	2012	EurObserv'ER. "Biofuels Barometer," July 2013
Transport	Biofuels	31.5 ktoe	Amount of biodiesel consumption for transport.	2012	EurObserv'ER. "Biofuels Barometer," July 2013
Transport	Biofuels	32.4 ktoe	Total amount of biofuel consumption for transport.	2012	EurObserv'ER. "Biofuels Barometer," July 2013
Electricity	Wind	189 GWh	Wind power generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Hydropower	4.6 TWh	Hydropower generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	30 GWh	Biomass power generation	2011	Observ'ER. "Worldwide electricity production from renewable energy sources"
Non-Sector specific	Non-Technology specific	1,232 ktoe	Primary production of renewable energy.	2010	Eurostat. "Primary production of renewable energy"
Electricity	Wind	139 GWh	Wind power generation	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Hydropower	8.4 TWh	Hydropower generation	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	29 GWh	Biomass power generation	2010	Observ'ER. "Worldwide electricity production from renewable energy sources"
Non-Sector specific	Non-Technology specific	1,029 ktoe	Primary production of renewable energy.	2009	Eurostat. "Primary production of renewable energy"

Electricity	Wind	54 GWh	Wind power generation	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Hydropower	6.8 TWh	Hydropower generation	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"
Electricity	Solid Biomass	26 GWh	Biomass power generation	2009	Observ'ER. "Worldwide electricity production from renewable energy sources"