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# Croatia

## General Country Information

Population: 4,267,000  
 Surface Area: 56,590 km<sup>2</sup>  
 Capital City: Zagreb  
 GDP (2012): \$ 56.4 billion  
 GDP Per Capita (2012): \$ 13,227  
 WB Ease of Doing Business: 89

## Electricity Generating Capacity 2012



**4,363 MW**  
Total Installed Capacity



**232 MW**  
Installed RE Capacity

**5.3%**  
RE Share



Biomass



Solar PV



Wind



Small Hydro

## Installed Renewable Electricity Capacity 2012 in MW

## Technical Potential for Installed Renewable Electricity Capacity in MW

6.7	5.1	217	3.1
1,500	53,400	6,900	200

Sources: Lalic et al. (2011); Krajacic et al. (2013); Delomez (2012); ECS (2010); Ministry of Economy, Labour and Entrepreneurship (2013); World Bank (2014); EIA (2010); EIA (2013); Hoogwijk and Graus (2008); Hoogwijk (2004); JRC (2011); and UNDP calculations.

## Key information about renewable energy in Croatia

Croatia, the newest EU member (joined 1 July 2013), has tremendous renewable potential, especially in solar power. To boost investment, the Croatian government uses a feed-in tariff for renewable energy as its main promotion instrument. Eligible producers sign a contract with the Croatian Energy Market Operator (HROTE) and receive the tariff for 14 years. A new tariff system was adopted on 31 October 2013, meaning that from 2014 solar power plants with an installed capacity exceeding 300 kW will be eligible to receive a feed-in tariff that is equal to the average electricity production costs. However, funding is restricted to the first 5 MW of building-integrated photovoltaic capacity and the first 5 MW of other photovoltaic capacity. The Croatian Transmission System Operator (HEP-OPS) limited the installed capacity of new wind power plants at 360 MW (Krajacic et al., 2013). The World Bank's Ease of Doing Business indicator ranks Croatia in 89<sup>th</sup> position (IFC & World Bank, 2014). Croatia's

**Feed-in tariff in Croatia<sup>1</sup>**

Eligible technologies	Additional condition	Installed capacity	Tariff granted in €/MW-h
<b>Wind</b>		Up to 1 MW Exceeding 1 MW	<b>95</b> <b>93</b>
<b>Solar</b>	Building integrated	Up to 10 kW 10 to 30 kW 30 to 300 kW	<b>250.33</b> <b>222.80</b> <b>201.83</b>
<b>Hydro</b>		up to 300 kW 300 kW - 2 MW 2 MW - 5 MW	<b>140.24</b> <b>121.89</b> <b>115.33</b>
<b>Biomass</b>		up to 300 kW 300 kW - 2 MW exceeding 2 MW	<b>170.38</b> <b>163.83</b> <b>157.27</b>

Source: Government of the Republic of Croatia (2013). HRK/€ exchange rate as on 14 November 2013.

accession to the EU is likely to increase investor friendliness. In 2012, Croatia recorded the region's highest FDI inflow of \$1.251 million (UNCTAD, 2013).

**Legislation and policy**

In accordance with EU Directive 2009/28/EC, Croatia committed itself to a national binding target of 20 percent share of renewable energy in the gross final energy consumption by 2020 (EC, 2012). The Energy Act of 2012, which defines energy policy and energy development, and the Electricity Market Act, last amended in 2013 and regulating activities in the electricity market (e.g. generation, transmission and distribution), are the main legal documents regulating the electricity market (ResLegal, 2013). The Tariff System for Electricity Production from Renewable Energy Sources and combined heat and power, last amended in 2013, determines the feed-in tariffs for eligible renewable energy producers. There are other incentives too. Solar photovoltaic power plants with additional ability to produce hot water or heat receive a higher feed-in tariff and all power plant operators may receive a bonus of up to 20 percent of the tariff based on social and environmental factors, such as employment or the plant's contribution to the local community (ResLegal, 2013). Interest free loans are available for renewable energy developers by the Fund for Environmental Protection and Energy Efficiency. Grid connection for renewable energy power plants is non-discriminatory and the distribution operator HEP ODS bears the grid connection costs. Energy production is subject to licencing, which is obtained, together with 'qualified producer' status to receive the feed-in tariff, by the Croatian Energy Regulatory Agency (HERA).

<sup>1</sup> Power produced from biogas and geothermal power plants are also eligible to receive a feed-in tariff.

## Institutions

Organization	Responsibility	Website
<b>Ministry of Economy</b>	- Responsible for energy policy in Croatia and registers eligible renewable energy producers	<a href="http://www.mingo.hr">www.mingo.hr</a>
<b>Renewable Energy and Energy Efficiency Department OIEU</b>	- Responsible for administrative and professional activities related to renewable energy and energy efficiency - Offers an interactive renewable energy map of Croatia	
<b>Croatian Energy Regulator Agency</b>	- Responsible for issuing licences for activities in the energy sector - Together with Ministry of Economy, its grants status of a 'qualified producer', which allows the producer to receive the feed-in tariff - Proposes tariffs and sets prices for the regulated price of the electricity price - Oversees HROTE	<a href="http://www.hera.hr">www.hera.hr</a>
<b>Croatian Energy Market Operator (HROTE)</b>	- Energy Market Operator oversees the organization of the electricity market	<a href="http://www.hrote.hr/">www.hrote.hr/</a>
<b>Hrvatska Elektroprivreda (HEP)</b>	- State-owned energy company owning subsidiaries responsible for electricity generation, transmission and distribution	<a href="http://www.hep.hr/">www.hep.hr/</a>
<b>Agency for Investment and Competitiveness</b>	- State investment agency, established to attract, consult and facilitate potential investors	<a href="http://www.aik-invest.hr">www.aik-invest.hr</a>

## Opportunities to finance renewable energy projects in Croatia

Financing organization	Details	Website
<b>Fund for Environmental Protection and Energy Efficiency</b>	Awards interest-free loans available to all Croatian individuals and legal entities for renewable energy projects through tendering processes. The amount and conditions vary with each tender.	<a href="http://www.fzoeu.hr/hrv/index.asp">www.fzoeu.hr/hrv/index.asp</a>
<b>Croatian Bank for Reconstruction and Development (HBOR)</b>	Croatian Development Bank offers loans for public and private entities investing in energy efficiency and renewable energy projects. Minimum loan is €13,000 and loans can cover up to 75 percent of the estimated investment value without VAT.	<a href="http://www.hbor.hr/hrvatski">www.hbor.hr/hrvatski</a>
<b>EU Means</b> - European Investment Fund (EIF) - European Investment Bank (EIB) - Structural Funds	Loans and guarantees via commercial banks as intermediaries (e.g. Privredna Banka Zagreb, and Zagrebacka Banka) and private equity/venture capital are available.	<a href="http://www.europa.eu/youreurope/business/finance-support/access-to-finance/">www.europa.eu/youreurope/business/finance-support/access-to-finance/</a>

# Croatia

<b>Western Balkans Sustainable Energy Direct Financing Facility (WeBSEDF)</b>	Local small and medium enterprises with a sound financial and economic structure and sufficient equity capital can apply for direct loans from EBRD's Western Balkan Sustainable Energy Direct Financing facility of between €2 million and €6 million.	<a href="http://www.websedff.com">www.websedff.com</a>
<b>Green Growth Fund</b>	Provides direct and indirect financing (through financial intermediaries) for small scale renewable energy projects usually not larger than €50 million.	<a href="http://www.ggf.lu/">www.ggf.lu/</a>
<b>International Finance Corporation (IFC)</b>	With investment (equity, loans and other financial instruments) and advisory services, IFC supports investment with focus on Climate change, including investments in infrastructure and energy sectors.	<a href="http://www.ifc.org/">www.ifc.org/</a>
<b>European Bank for Reconstruction and Development (EBRD)</b>	Provides renewable energy developers with equity, loans and loan guarantees for projects with good commercial prospects of up to 15 years' duration.	<a href="http://www.ebrd.com/pages/workingwithus/projects.shtml">www.ebrd.com/pages/workingwithus/projects.shtml</a>

## Recent projects

Company	Project	Status
<b>wpd AG (Germany)</b>	Operates three wind parks with a total installed capacity of 58 MW. The most recent, Ponikve, was commissioned in late 2012.	<b>Commissioned</b>
<b>Unit Investment (Turkey)</b>	8 MW Kastela Solar Photovoltaic Plant near Split is currently under development, with total estimated investment costs of €15 million and expected to be commissioned in 2015.	<b>Under development</b>

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