

Renewable Energy Policy Factsheet

Summary

Electricity from renewable sources is promoted through a premium tariff and a guaranteed feed-in tariff (for installations of less than 30 kW), allocated through tenders. Soft loans and subsidies for renewable energy projects are also provided. Renewable energy sources for heating purposes only are not promoted through a national support scheme. A training programme for RES installers aims at promoting the development, installation and usage of power generating and heating installations based on renewables. The main promotion scheme in the field of renewable transport fuels is a biofuels quota scheme. Additionally, the state provides biofuels incentives taking the form of a tax credits mechanism.





Abbreviations used:

RES: renewable energy sources **RES-E:** renewable electricity RES-H/C: renewable heating/cooling **RES-T:** renewable transport fuels



28.3% 20.0% 46.7% 1.3% 37.6%

Avoided fossil fuels: Avoided fuel expenses: **RES Turnover: RES Employment:**

3.3 [Mtoe] 0.7 [billion euro] 700 [MEUR] 20500 [jobs]





Hydropower Wind power Solar PV, CSP and water heaters

- Solid biomass
- Biofuels in transport

Renewable heat consumed Renewable heat derived

Heat pumps

All other renewables

□ Gap towards 2016

Source: Eurostat, 2018.

	2005	2016				
	Energy	Energy	Employment	Turnover		
Hydropower	533.0 ktoe	598.5 ktoe	1600 Jobs	90 MEUR		
Wind power	1.0 ktoe	87.6 ktoe	900 Jobs	50 MEUR		
Solar PV, CSP and water heaters	0.0 ktoe	5.6 ktoe	200 Jobs	< 20 MEUR		
Solid biomass	0.3 ktoe	16.7 ktoe	15000 Jobs	380 MEUR		
Biofuels in transport	0.0 ktoe	1.0 ktoe	1900 Jobs	100 MEUR		
Renewable heat consumed	1245.4 ktoe	1174.7 ktoe				
Renewable heat derived	0.0 ktoe	29.0 ktoe				
Heat pumps	5.2 ktoe	15.8 ktoe	< 100 Jobs	< 10 MEUR		
All other renewables	0.9 ktoe	20.4 ktoe				
Gap towards 2016	163.4 ktoe			Source: Eurostat, EurObserv'ER, 2018.		

Hydropower jobs & turnover only covers 'small hydropower'. PV=Photovoltaics, CSP=Concentrated Solar Power. Biofuels in transport only covers compliant fuels (employment and turnover additionally cover the non-compliant biofuels). Derived heat includes heat produced in main activity producer plants and heat sold produced in autoproducer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).



Renewables policy in a nutshell

Electricity from renewable sources is promoted through a premium tariff (and a guaranteed feed-in tariff for installations of less than 30 kW), allocated through tenders. So far no tenders have been organised due to the delays in adopting the necessary secondary legislation. Soft loans and subsidies for renewable energy projects are also provided. Renewable energy sources for heating purposes only are not promoted through a national support scheme. A training programme for RES installers aims at promoting the development, installation and usage of power generating and heating installations based on renewables. The main promotion scheme in the field of renewable transport fuels is a biofuels quota scheme. Additionally, the state provides biofuels incentives taking the form of a tax credits mechanism.

CURRENT RENEWABLE ENERGY POLICY

Renewable energy generation is supported mainly through a premium tariff and a feed-in tariff (for installations of less than 30 kW) allocated through tenders. Additionally, the Croatian Bank for Development and Reconstruction (HBOR) and the Environmental Protection and Energy Efficiency Fund (FZOEU) provide financial incentives for RES-E projects.

The access of electricity from RES to the grid is regulated by the general legislation on energy and RES installations are given priority. Electricity from RES is subject to special provisions only in case of wind power plants.

There are currently no support schemes for RES heating and cooling. However, the Energy Strategy adopted in 2009 obliges the Croatian State to encourage the future use of RES and to achieve a higher percentage of primary use of RES in the heating sector (cooling is not mentioned). A training programme for RES installers aims at promoting the development, installation and usage of power generating and heating installations based on renewables.

The main promotion scheme in the field of RES-T is a biofuels quota scheme. Additionally, the state provides a tax regulation mechanism to encourage the usage of biofuels.

OVERVIEW OF MAIN SUPPORTING POLICIES

The following measures and instruments are in place for renewable electricity generators:

- RES-E plant operators, who have obtained the status of privileged producer and have won a public tender carried out by the Croatian Energy Market Operator, can receive a premium tariff in addition to the selling price, which was obtained on the electricity market.
- Privileged producers owning RES installations, which do not exceed a capacity of 30 kW, can conclude a power selling contract at a guaranteed purchase price, if they have won a public tender carried out by the Croatian Energy Market Operator.
- Soft loans granted for the implementation of RES-E projects are part of the "environmental protection" loan scheme by the Croatian Bank for Reconstruction and Development (HBOR) in cooperation with commercial banks.
- The Environmental Protection and Energy Efficiency Fund (FZOEU) offers grants and soft loans for the use of renewable energy sources.

Currently no support schemes exist for *renewable heating and cooling*. However, the Energy Strategy adopted in 2009 obliges the Croatian State to encourage the future use of RES and to achieve a higher percentage of primary use of RES in the heating sector (cooling is not mentioned). For the promotion of renewable energy in heating and cooling, the main document is the Programme for usage of the potential for heating and cooling for period between 2016 and 2030 (*Program korištenja potencijala za učinkovitost u grijanju i hlađenju za razdoblje 2016. – 2030*.).

Direct stimulation of *renewable transport fuels*, only open for biofuels, is applied through the following policies and measures:

- A biofuels quota scheme obliges importers and suppliers of transport fuels to deliver a minimum share of biofuels for each year up to the year 2020 as defined in national legislation
- A tax credits mechanism sets the excise duty for biofuels to zero
- Electric vehicles are subject to reduced or are exempt from registration tax

Table 1: Overview of support schemes to promote renewable energy

						FISCAL INCENTIVE AND PUBLIC FINANCES				
	Feed-in tariffs	Feed-in premiums*	Tenders**	Quota obligation with Tradable Green certificates	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Investment subsidies	Tax credit mechanism l	Tax credit mechanism II	Soft loans
RES-E										
- Offshore wind	х	х	х				х			х
- Onshore wind	х	х	х				х			х
- Solar	х	х	х				х			х
- Hydro	х	х	х				х			х
- Geothermal	х	х	х				х			х
 Solid biomass 	х	х	х				х			х
- Biogas	х	х	х				х			х
RES-H/C										
- Solar thermal										
- Geothermal										
- Biomass										
- Biogas										
 Small scale installations, e.g. solar thermal collectors, heat pumps, biomass boilers and pellet stoves 										
- Others, i.e. aerothermal,										
hydrothermal heat pumps										
RES-T										
- Bio gasoline					х			х		
- Biodiesel					х			х		

Sources: EurObserv'ER, GSR/REN21, RES-Legal Europe (2017)

* Feed-in tariffs are available for installations of less than 30 kW.

** Tenders in combination with a feed-in scheme

Table 2: Overview of instruments used at present

Instrument	Description
Feed-in tariffs	Guaranteed sale of electricity at a pre-set preferential price during the support
	contract period. New applications open to small-scale projects (\leq 30 kW)
	through tenders.
Feed-in premiums	Floating premiums based on difference between guaranteed reference values
	and the average benchmark electricity price per reference period during the
	support contract period. New applications open to large-scale projects (> 30
	kW) through tenders.
Tenders	Applicable to project developers seeking feed-in tariff or premium support
	benefits.
Investment	The Environmental Protection and Energy Efficiency Fund (FZOEU) offers grants
subsidies	and soft loans for the use of renewable energy sources.
Soft loans	Granted for the implementation of RES-E projects are part of the
	"environmental protection" loan scheme by the Croatian Bank for
	Reconstruction and Development (HBOR) in cooperation with commercial
	banks. The Environmental Protection and Energy Efficiency Fund (FZOEU) also
	offers soft loans for the use of renewable energy sources.
Biofuels quota	Obliges importers and suppliers of transport fuels to deliver a minimum share
scheme	of biofuels for each year up to the year 2020 as defined in national legislation.
Tax credits	Sets the excise duty for biofuels to zero.
mechanism	

For further information:

CEER, 2017. Status Review of Renewable Support Schemes in Europe. <u>http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Electricity/2</u> <u>017/C16-SDE-56-03%20Status%20Review%20RES%20Support%20Schemes.pdf</u>

EEA, 2017. [1] EEA, 2017 <u>http://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-2</u>

Eurostat, 2017. Energy from renewable sources. <u>http://ec.europa.eu/eurostat/statistics-</u> explained/index.php/Energy_from_renewable_sources

REN21, Global Status Report 2017 <u>http://www.ren21.net/wp-</u> content/uploads/2017/06/170607 GSR 2017 Full Report.pdf

IEA/IRENA Joint Policies and Measures database. https://www.iea.org/policiesandmeasures/renewableenergy/?country=Croatia

Member State Progress Report, available at the Renewable Energy pages of the European Commission, <u>http://ec.europa.eu/energy/en/topics/renewable-energy</u>

RES Legal database, http://www.res-legal.eu/search-by-country/croatia/

http://globalcompetitionreview.com/insight/the-european-middle-eastern-and-african-antitrustreview-2017/1067815/eu-energy (Croatian renewables support compatible with the EU internal market: DG COMP decision SA.38406 on 1 September 2015)

https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-croatia_en.pdf (European Commission/ DG ENER, Energy Union Factsheet Croatia, November 2017)

European Alternative Fuels Observatory, <u>http://www.eafo.eu/content/croatia</u>; <u>http://www.eafo.eu/eu</u>



This project is funded by the European Union under contract n° ENER/C2/2016-487/SI2.742173

Disclaimer

This document was prepared by the EurObserv'ER consortium, which groups together Observ'ER (FR), the Energy research Centre of the Netherlands (ECN, NL), the Renewables Academy (RENAC, DE), Frankfurt School of Finance and Management (DE), Fraunhofer-ISI (DE) and Statistics Netherlands (CBS, NL). The information and views set out in this publication are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.