

RENEWABLE ENERGY SNAPSHOT:



Empowered lives.
Resilient nations.

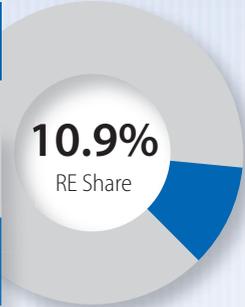
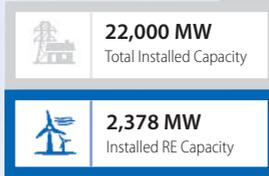
Romania



General Country Information

Population: 21,326,905
 Surface Area: 238,390 km²
 Capital City: Bucharest
 GDP (2012): \$ 169.4 billion
 GDP Per Capita (2012): \$ 7,943
 WB Ease of Doing Business: 73

Electricity Generating Capacity 2012



- 
Biomass
- 
Solar PV
- 
Wind
- 
Small Hydro

Installed Renewable Electricity Capacity 2012 in MW

Technical Potential for Installed Renewable Electricity Capacity in MW

16.8	6.4	1,905	450
12,100	219,700	14,000	1,100

Sources: EBRD(2009); WWEA (2013); EurObserv'Er (2013); KPMG (b) (2012); ESHA (2012); World Bank(2014); Armand Consulting (2010); Renewable Facts (2013); EIA (2013); Hoogwijk and Graus (2008); Hoogwijk (2004); JRC (2011); and UNDP calculations.

Key information about renewable energy in Romania

Romania's share of renewable energy to total installed capacity has risen in recent years to 11 percent by the end of 2012. In 2012, it showed the highest global growth rate for commissioned wind power plants (including only markets bigger than 200 MW of installed capacity), and 1079 MW of wind power plants was installed in that year (WWEA, 2013). This was due to a support scheme of quota obligations, minimum and maximum prices and tradable renewable energy certificates introduced in 2008. In the quota system, electricity suppliers and producers are obliged to produce a fixed quantity of renewable energy per year (increasing annually from 14 percent in 2013 to 20 percent in 2020) (Law No. 220/2008, Art. 4 [4&5]). However, to account for the total capacity of renewable energy plants that have actually been installed, total consumed electricity, the Romanian Energy Regulatory Authority (ANRE) may adjust the quotas annually until 1 March for the previous year. The quota for

Quota promotion with tradable renewable energy certificates in Romania

Eligible technologies	Number of green certificates obtained per MW-h for power plants		Price per MW-h per certificate for Power Plants commissioned after 1 January 2014	
	commissioned before 1 January 2014	commissioned after 1 January 2014	Min price/MW-h (€27/certificate)	Max price/MW-h (€55/certificate)
Wind	Until 2017: 2 (1) From 2018: 1	Until 2017: 1.5 From 2018: 0.75	40.5 20.25	82.5 41.25
Solar	All: 6 (4)	All: 3	81	165
Geothermal	All: 2	All: 2	54	110
Hydro	New: 3 (2) Modernized: 2 Other: 1	New: 2.3 Modernized: 2 Other: 1	62.1 54 27	126.5 110 55
Biomass	CHP: 3 Energy Crops: 3 Other: 2	CHP: 3 Energy Crops: 2 Other: 2	81 54 54	165 110 110

Source: Law No. 220/2008 including amendments from Emergency Ordinance no. 57/2013 (in parentheses) and Government Decision no. 994/2013 for the determination of certificates from 1 January 2014.

2013 was 0.224 certificates per MW-h (ANRE, 2014). The certificates, issued by the transmission grid operator, can either be purchased on the market for green certificates or produced by generating renewable energy. Renewable energy producers have the right to obtain green certificates for 15 years from the time a new plant is commissioned, or seven years for plants that existed when the law as adopted. Suppliers and producers that do not meet their required quota are required to buy the missing certificates at €110 per certificate. But in 2013, due to concerns about the cost of promoting renewable energies, the Government of Romania amended Law No. 220/2008. ANRE evaluated the various technologies for overcompensation and consequently suspended the issuance of tradable renewable energy certificates for specific renewable energy technologies until 2017. However, these certificates are only suspended and all delayed certificates will be provided to the power producers by the end of 2020. Both existing and newly commissioned power plants before 1 January 2014 are affected by this amendment. With Government Decision no. 994/2013 in December 2013, the Government of Romania reduced the number of certificates for installations commissioned after 1 January 2014 producing electricity from wind, solar and new constructed small hydropower (Republic of Romania, 2013).

Legislation and policy

In line with the EU Directive 2009/28/EC on Renewable Energy, Romania developed a National Renewable Energy Action Plan targeting a share of 24 percent of renewable energy sources in gross final energy consumption by 2020 (Government of Romania, 2010). It is planned that 729 MW of installed small hydropower capacity, 260 MW of installed solar photovoltaic capacity, 4,000 MW of installed wind power capacity and 600 MW of installed biomass power capacity will be commissioned by 2020 resulting in a total of 12,589 MW from renewable energy sources, including large hydro. The Law No. 123/2012 on Electricity and Natural Gases and Law No. 220/2008 Establishing a System for the Promotion of Electricity Generation from Renewable Sources define the legislation for electricity generation from renewable sources. Other incentives exist in addition to the quota-based support scheme. Through the subsidy programmes, 'Modernisation of Agricultural Exploitation' and 'Increasing the Added

Value of Agricultural and Forestry Products, funds from the European Agricultural Fund for Rural Development are used to promote investment in renewable energy projects for applicants' own energy consumption. The first covers up to 75 percent of costs of farmers' renewable energy projects, the second covers up to 50 percent (to a maximum of €2,000,000, depending on the size and location of the enterprise). The Romanian Environmental Fund covers up to 50 percent of project costs for Romanian enterprises' renewable energy projects, to a maximum of Leu 30 million (c. €6.7 million). Since 2010, the fund has not published calls for applications and it is expected that the terms and conditions will change with the new call for applications (ResLegal, 2013). If renewable energy projects are supported by a subsidy, ANRE's evaluations of the number of certificates granted for the specific technology are made on a case-by-case basis. There are tax incentives, such as the exemption of excise and specific local taxes for electricity produced from renewable sources, and renewable energy developers are prioritized for connection to the grid (KPMG (a), 2012). The plant operator bears the connection costs, but is entitled (if required) to request an extension of the grid, whose costs are borne by the grid operator (ResLegal, 2013).

Institutions

Organization	Responsibility	Website
Ministry of Economy and Commerce	- Responsible for shaping the national energy strategy	www.minind.ro/
Energy Regulatory Authority (ANRE)	- Energy regulator responsible for ensuring fair and independent regulations in the fully liberalized electricity market, e.g. the adjustment and enforcement of the obligatory renewable energy source quotas for electricity producers	www.anre.ro/
Transelectrica S.A.	- Transmission system operator responsible for transmission and electricity market management	www.transelectrica.ro/
Hidroeléctrica S.A.	- State-owned and currently the country's largest electricity generator - Aimed to have privatized its small hydropower plants by the end of 2013. - Successfully tendered 14 small hydropower plants, raising €10.6 million with an installed capacity of 9.4 MW in early 2013, and tendered 25 small hydropower plants in July 2013	www.hidroelectrica.ro

Opportunities to finance renewable energy projects in Romania

Financing organization	Details	Website
Romanian Sustainable Energy Finance Facility (RoSEFF)	Small and medium enterprises' renewable energy projects can apply for loans of up to €1 million and grants of up to 15 percent (max. €150,000) of investment costs.	www.seff.ro/
European Bank for Reconstruction and Development (EBRD)	Provides renewable energy developers with equity, loans and loan guarantees for projects with good commercial prospects of up to 15 years' duration.	www.ebrd.com/pages/workingwithus/projects.shtml

Romania

Financing organization	Details	Website
EU Means European Investment Fund European Investment Bank Structural Funds	Loans and guarantees through Romanian intermediaries (e.g. Raiffeisen Bank Romania, Banca Comerciala Romana) and private equity/venture capital are available.	www.europa.eu/youreurope/business/finance-support/access-to-finance/
International Finance Corporation (IFC)	Private, environmental and technically sound projects may apply for loans of up to 35 percent of the estimated project costs, which are usually provided through partner intermediaries.	www.ifc.org/

Recent projects

Company	Project	Status
Energias de Portugal (Portugal)	Commissioned a wind farm of 90 MW in 2010 and one wind farm of 134 MW in 2011.	Commissioned
ET Solar (China)	Commissioned a 28 MW PV solar power plant in 2013 and holds 50 MW of installed power generating capacity.	Commissioned
Enel Green Power (Italy)	Commissioned two power plants in 2013 with an installed capacity of 19 MW.	Commissioned

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