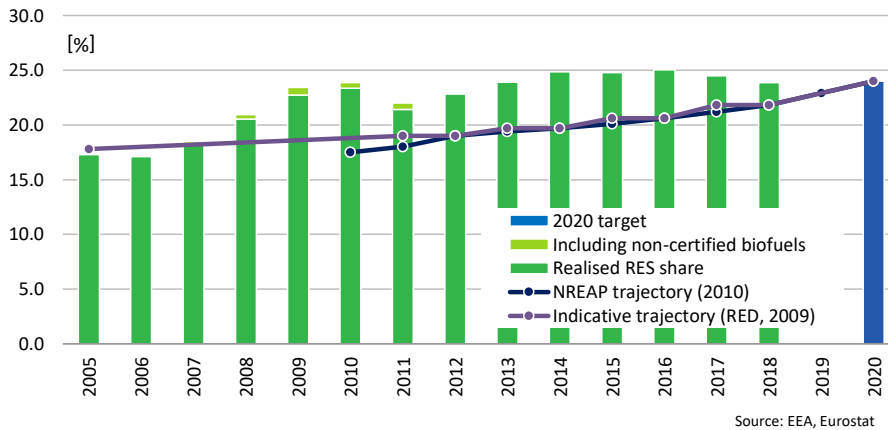


Summary

The promotion of renewable electricity in Romania relies primarily on a renewable quota scheme. Since 2017 the scheme has been closed for new projects. In March 2017, the government has approved a new Emergency Ordinance No.24/2017 with amendments to the country's main renewable energy law no. 220/2008. The new emergency ordinance cleared up some legal uncertainties and brought some stability and transparency to the Green Certificate support scheme. Additionally, in April 2017 a new state aid scheme has been approved by Government Decision no. 216/2017 to promote energy production from less exploited energy sources, namely biomass, biogas and geothermal energy. According to the 2017 version of the Romanian National Energy Strategy, there are no plans for a further support scheme for new renewable electricity generation installations. Renewable heating and cooling is promoted through investment subsidies. Renewable energy sources in the transport sector are promoted by a biofuels quota scheme and indirectly through a subsidy scheme for the purchase of electric vehicles.



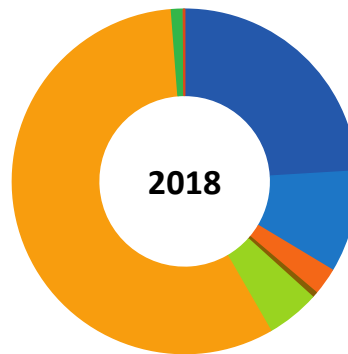
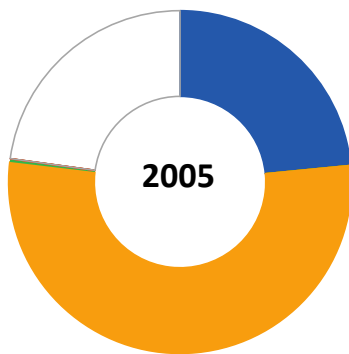
Source: EEA, Eurostat

Abbreviations used:

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

Data for 2018

Overall RES share:	23.9%	Avoided fossil fuels:	10.9 [Mtoe]
Overall RES 2020 target:	24.0%	Avoided fuel expenses:	2.5 [billion euro]
Share RES-E in electricity:	41.8%	RES Turnover:	1920 [MEUR]
Share RES-T in transport:	6.3%	RES Employment:	55300 [jobs]
Share RES-H/C in heating:	25.4%		



- 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 2018

Source: Eurostat, 2020.

	2005		2018		
	Energy		Energy	Employment	Turnover
Hydropower	1397.6 ktoe		1432.8 ktoe	3300 Jobs	220 MEUR
Wind power	0.0 ktoe		570.9 ktoe	2200 Jobs	170 MEUR
Solar PV, CSP and water heaters	0.0 ktoe		152.3 ktoe	1200 Jobs	80 MEUR
Solid biomass	0.5 ktoe		31.6 ktoe	6800 Jobs	210 MEUR
Biofuels in transport	0.0 ktoe		297.1 ktoe	40000 Jobs	1130 MEUR
Renewable heat consumed	3183.5 ktoe		3403.0 ktoe		
Renewable heat derived	18.1 ktoe		66.5 ktoe		
Heat pumps	0.0 ktoe		0.0 ktoe	300 Jobs	20 MEUR
All other renewables	0.7 ktoe		6.1 ktoe	1500 Jobs	90 MEUR
Gap towards 2018	1359.7 ktoe				

Source: Eurostat, EurObserv'ER, 2020.

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).



CURRENT RENEWABLE ENERGY POLICY

The main support scheme for *electricity from renewable sources* is a renewable quota scheme. In principle, this scheme covers all commercially non-viable renewable power generation technologies. Yet it has been closed for renewable power installations, commissioned after 31 December 2016. The scheme is still valid for installations commissioned before 2017 and will remain in place until 2031. Under the renewable quota scheme electricity suppliers and producers (e.g. industrial companies) have to comply with pre-set annual renewable electricity quota (expressed in the number of green certificates to be surrendered for every MWh of their annual total deliveries and consumption respectively). The quota for a certain year is decided upon by the competent authority, ANRE, in December of the preceding year. To that effect, ANRE projects next year's electricity consumption and seeks to curb the cost of the scheme in terms of € / MWh of final electricity consumption. Obligated parties have to prove compliance by surrendering the adequate number of tradable green certificates to the competent authority. Electricity-intensive producers can be granted partial compliance exemption up to 85% over a 10-year period. To the operator of each installation participating in the renewable quota scheme a pre-set technology-specific number of certificates is issued by the transmission system operator for each MWh of renewable electricity injected into the grid. The scheme support contract period starts at the commissioning date of the beneficiary plant with typically an initial duration of 15 years. However, the government can decide on an ad hoc basis to suspend issuance of certificates for certain technologies or change the number of certificates per MWh of power from the certificates-eligible source. These regulatory risks have turned out to be serious for renewable electricity project developers and operators in Rumania.

For installations commissioned after 2016 project developers can apply for investment subsidy to one of the available investment subsidy programmes. The National Rural Development Programme offers subsidies in the agricultural sector: Measure 4 "Investment in physical assets". These promote amongst others the use of renewable energy sources for the applicants' own consumption. Wind power, solar, geothermal, biogas and biomass energy sources are eligible. Additionally, in April 2017 a new state aid scheme has been approved by Government Decision no. 216/2017 to promote energy production from less exploited energy sources, restricted to biomass, biogas and geothermal energy. The new support scheme is supported by the Ministry of Regional Development, Public Administration and 85% co-financed by the European Regional Development Fund. It aims to increase the electricity and thermal energy production from these sources by additional 60 MW capacity until 2023 with large, medium, small and micro enterprises as targeted beneficiaries. Furthermore, starting from 1 January 2019, investment subsidy will be available for PV systems which could cover up to 90% of the total system cost. The maximum subsidy per system is RON 20,000 (approximately € 4,300). Rooftop as well as ground-mounted systems with a minimum capacity of 3 kW are eligible. While Law No 122/2015 foresees the introduction of a feed-in tariff for installations smaller than 500 kW, the methodology for the application of this scheme has not been developed yet.

Support for installations producing *renewable heating and/or cooling* is provided by investment subsidy programmes of the Romanian Environmental Fund, the Rural Development Programme and Ministry of Regional Development, Public Administration and European Funds. The Romanian Environmental Fund provides subsidies both for natural persons and administrative-territorial units,

religious institutions and public institutions for the installation of heating systems using renewable energy sources. The National Rural Development Programme subsidises renewable heating installations of farmers and agricultural cooperatives for own consumption. Furthermore, there is a recommendation in place considering the use of renewable energy sources in new buildings with a surface of more than 1000m². An investment subsidy programme encourages investment in the district heat infrastructure using bioenergy on local level and provides co-financing at concessional terms.

In April 2017 through Government Decision no. 216/2017 a new state aid support scheme was put in place to stimulate energy production from biomass, biogas and geothermal energy. This scheme, co-financed for 85% by EU regional development funding, is to increase renewable electricity and thermal energy production capacity by 60 MW until 2023.

Renewable energy sources in the transport sector are promoted by a biofuels quota scheme. Fuel retailers are obliged to ensure that biofuels make up the prescribed minimum share of their annual petrol and diesel fuel sales. They have to prove this by submitting annual reports to the competent authority, the Ministry of Economy, Trade and Business Environment, with adequate compliance documentation. Only certified biofuels satisfying specific sustainability criteria can be taken into account for fulfilling the prescribed quota. Furthermore, fuel retailers are required to achieve certain percentage point reductions in the greenhouse gas emissions per unit of market fuel sold.

The uptake of battery electric and hybrid electric cars are promoted with respectively an approximately € 4450 (RON 20000) and an approximately € 1100 (RON 5000) purchase subsidy. Both battery electric and hybrid electric vehicles are exempt from registration tax. They also get a CO₂ based reduction on car ownership tax. Furthermore electricity recharging stations in cities with more than 50,000 inhabitants are eligible to a maximum investment subsidy of €2,500 for stations < 22 kW and €30,000 for stations ≥ 22 kW.

So far, the assessment by the European Commission of draft National Energy and Climate Plans of the Member States is available. The Commission's assessment of the draft integrated National Energy and Climate Plan of Romania – regarding the targets for year 2030 for the share of renewable energy and gross final energy consumption only¹ – is shown in Table 1 below.

¹ Gross final energy consumption negatively affects the share of renewables: given a certain level of final consumption from renewable sources, the more total final energy consumption can be reduced, the higher share of renewables can be achieved.

Table 1: Overview of Romania’s actual performance (2018), targets (2020), proposed contributions (2030) under the Governance Regulation, Regulation (EU) 2018/1999 and contribution ambition assessment by the European Commission, regarding the share of renewables and the level of gross final energy consumption

National targets and contributions	2018	2020	2030	Assessment of 2030 ambition level
Share of energy from renewable sources in gross final consumption of energy (%)	23.9	24.0	27.9	Below 34% (result of RES formula)
Final energy consumption (Mtoe)	23.5	30.3	27.5	Very low

Source: European Commission, (2019); Eurostat (2020a, 2020b)

Based on the formula contained in Annex II of the Governance Regulation, Romania’s renewables share would have to reach the level of at least 34% in 2030 (European Commission, 2019) against the historical rate of 23.9% in 2018 (eurostat, 2020a). The European Commission (2019) considers the proposed RES share by 2030 of 27.9% to be modest. The Commission deems the ambition level of the proposed **27.5 Mtoe** as Romania’s proposed contribution to the EU 2030 target for final energy consumption “to appear very low”, considering the level of efforts required at the EU level to collectively reach the Union’s 2030 efficiency target. In 2018 Romania’s gross final energy consumption amounted to **23.5 Mtoe** (Eurostat, 2020b).

Romania’s final National Energy and Climate Plan (NECP) raises the target for the renewables share by year 2030 to **30.7%** compared to 27.9% proposed in its draft NECP. Yet the 30.7% target share still falls 3.3% short with respect to the rate resulting from the formula in Annex II of the Governance Regulation. To achieve the 30.7% target, some broad existing and additional policies Romania sets out to implement that will incentivise renewables include (Government of Romania, 2020):

In order to reach the ambition level regarding the share of renewable energy of 30.7 % in 2030, Romania will ... develop additional RES capacities of approximately 6.9 GW compared to 2015. In order to achieve this target, appropriate funding from the EU is needed in the sense of providing for the appropriate adequacy of electricity grids and flexibility in the production of RES-E by deploying backup gas capacities and storage capacities and by using smart electricity grid management techniques..... The revenues from the EU ETS Mechanisms and the Structural Funds pertaining to the new Multiannual Financial Framework for 2021-2027 will be used to fund RES projects that will contribute to the achievement of the target for 2030.....Enabling the conclusion of long-term contracts between project developers/electricity producers and consumers...contributes to an increase in the use of energy from renewable sources in the light of the fact that it secures the return on investment for developers/producers of renewable energy. Moreover, it provides the consumer with the opportunity of negotiating their contract directly with the electricity producer, at the same time being independent and secured against energy price fluctuations in cases of high demand..... The adoption of the advanced technologies will be conducive to the achievement of the RES target through: development of solar and wind power plants, development of storage capacities and digitalisation of the energy system..... The main measures taken at national level ... in order to promote an increase in the amount of energy from renewable sources, taking account of the indicative trajectory for achieving the RES targets, are set out in the following legislative acts (as subsequently amended and supplemented):

- the system promoting production of energy from renewable sources through green certificates (accreditation was allowed by the end of 2016 and the validity of the aid scheme for accredited operators expires in 2032);
- developing the electricity transmission and distribution grids to ensure the discharge of electricity produced by power plants...

- updating the Sectoral Operational Programme 'Increase of Economic Competitiveness', Axis 4 Increasing energy efficiency and security of supply, in the context of combating climate change;
- the Large Infrastructure Operational Programme (LIOP), Priority Axis 6 - Promoting clean energy and energy efficiency in order to support a low carbon economy. Specific Objective 6.1 Increasing production of energy from less exploited renewable resources (biomass, biogas, geothermal);
- the Regional Operational Programme (ROP) Priority Axis 3 Supporting transition towards a low-carbon economy (the National Environmental Fund);
- placing on the market only biofuels and bioliquids produced from raw materials meeting the defined sustainability criteria and providing for the obligation to control compliance with these criteria;
- determining the content of biofuels for petrol and gas oil placed on the market; • certification of compliance with the sustainability criteria for biofuels and bioliquids, which are voluntary schemes recognised by the European Commission for demonstrating compliance with the sustainability criteria under Directive 2009/28/EC (Order No 136/2012 of the current Minister for the Economy and Business Environment);
- Law No 184/201 approving Government Emergency Order No 24/2017 amending and supplementing Law No 220/2008 establishing the system for the promotion of energy production from renewable energy sources and amending certain legislative acts.

As for Romania's contribution to the EU energy efficiency target for year 2030, in its final NECP Romania sets a target for total gross final energy consumption of **25.7 Mtoe**. This is somewhat more ambitious than the 27.5 Mtoe level proposed in Romania's draft NECP.

OVERVIEW OF MAIN SUPPORTING POLICIES

The main renewable energy support measures applied in Romania are summarised in Tables 2 and 3 below. See the previous section and the notes to Table 1 for more details.

Table 2: Overview of support schemes to promote renewable energy in Romania

	NON-FISCAL SUPPORT SCHEMES						FISCAL AND OTHER STATE FUNDED INCENTIVES			
	Feed-in tariffs	Feed-in premiums	Tenders	Quota obligation with Tradable Green certificates 1)	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Investment subsidies	Tax credit mechanism I	Tax credit mechanism II	Soft loans
RES-E										
- Offshore wind				x						
- Onshore wind				x			x			
- Solar				x			x			
- Hydro				x						
- Geothermal				x			x			
- Solid biomass				x			x			
- Biogas				x			x			
RES-H/C										
- Solar thermal							x			
- Geothermal							x			
- Biomass							x			
- Biogas							x			
- Small scale installations, e.g. solar thermal collectors, heat pumps, biomass boilers and pellet stoves							x			
- Others, i.e. aerothermal, hydrothermal							x			
RES-T										
- Bio gasoline					x					
- Biodiesel					x					
- Electric vehicles							x			

1) Since 2017 the renewable quota scheme is closed for new projects.

Sources: EurObserv'ER, RES-Legal Europe

Table 3: Overview of main instruments used at present in Romania

<i>Instrument</i>	<i>Description</i>
Renewable quota scheme	Suppliers are mandated to source annually a set annual minimum share of their total electricity deliveries from generators of power from renewable energy sources, to be proven by surrendering certificates. Since 2017 the renewable quota scheme is closed for new projects.
Investment subsidy	Developers of electricity generation and heating & cooling projects from renewable energy sources can apply for an investment subsidy from the National Rural Development Programme.
Vocational training programmes for installers	Applicable, among others, to technicians installing heating & cooling appliances.
Government recommendation to use renewable energy in new buildings	Applicable to new buildings with a floor surface of more than 1000m ² .
Investment subsidy for district heating	Also applicable to installations using bioenergy.
Biofuels quota scheme for transport fuels	Suppliers of transport fuels have to meet a certain minimum share of their annual turnover by biofuels that are certified to comply with regulated minimum sustainability criteria. Moreover, their transport fuel deliveries have to comply with certain minimum GHG emissions standards. The biofuels quota scheme does not encompass other renewable transport fuels.

For further information:

CEER, 2017. Status Review of Renewable Support Schemes in Europe.

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Electricity/2017/C16-SDE-56-03%20Status%20Review%20RES%20Support%20Schemes.pdf

European Alternative Fuels Observatory, <https://www.eafo.eu/countries/romania/1750/incentives>

European Commission, 2019. Assessment of the draft National Energy and Climate Plan of Romania. SWD(2019) 273. Brussels, 18 June

https://ec.europa.eu/energy/sites/ener/files/documents/ro_swd_en.pdf

EEA, 2019. Progress towards renewable energy source targets at member State and EU-28 levels. Copenhagen, 19 December https://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-9#tab-chart_3

European Union, 2018. Regulation (EU) 2018/1999 on the Governance of the European Union and Climate Action, OJEU L328/1, Brussels, 21 December

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R1999&from=EN>

Eurostat, 2020a. Renewable energy statistics; Share of renewable energy almost doubled between 2004 and 2018. Luxembourg, January

https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics

Eurostat, 2020b. Energy consumption in 2018. Primary and final energy consumption still 5% and 3% away from 2020 targets. Luxembourg, 4 February

<https://ec.europa.eu/eurostat/documents/2995521/10341545/8-04022020-BP-EN.pdf/39dcc365-bdaa-e6f6-046d-1b4d241392ad>

Government of Romania, 2020. The 2021-2030 Integrated National Energy and Climate Plan. Bucharest, April

https://ec.europa.eu/energy/sites/ener/files/documents/ro_final_necp_main_en.pdf

International Energy Agency (IEA) database on policies and measures

<https://www.iea.org/policies?topic=Renewable%20Energy>

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

REN21, 2020. Global Status Report 2020. Paris, 16 June

https://www.ren21.net/wp-content/uploads/2019/05/gsr_2020_full_report_en.pdf

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

https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-romania_en.pdf

(European Commission/ DG ENER, Energy Union Factsheet Romania, November 2017)

<http://luiza.manolea.ro/blog/legislatie/energie-din-surse-regenerabile/legea-2202008-promovarea-produserii-energiei-din-surse-regenerabile-de-energie/> (legislation regarding promotion of renewable electricity through the renewable quota scheme)

<http://www.mai.gov.ro/> (legislation regarding renewable heating and cooling)

<http://www.electrans.co.uk/romania-introduces-new-fangled-ev-policy/> (regards announcement of an electric vehicles subsidy programme.)

http://www.economica.net/promisiunea-psd--vouchere-de-10-000-de-euro-si-20-000-de-statii-de-incarcare-a-masinilor-electrice_131123.html#n (regards announcement of an electric vehicles subsidy programme)

[http://www.europarl.europa.eu/RegData/etudes/IDAN/2015/540376/IPOL_IDA\(2015\)540376_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2015/540376/IPOL_IDA(2015)540376_EN.pdf) (regards planning of –mainly electrical – railways network)

<http://globalcompetitionreview.com/insight/the-european-middle-eastern-and-african-antitrust-review-2017/1067815/eu-energy> (Amendments to renewable quota scheme meet EEAG: DG COMP decision SA.37177 on 4 May 2015)

Romanian Energy Centre, 2018. Romania’s clean energy: Obstacles and ways the industry could overcome them. Sponsored article published on the website of Politico. 12 June 2018:

<https://www.politico.eu/sponsored-content/romaniyas-clean-energy-obstacles-and-ways-the-industry-could-overcome-them/>



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