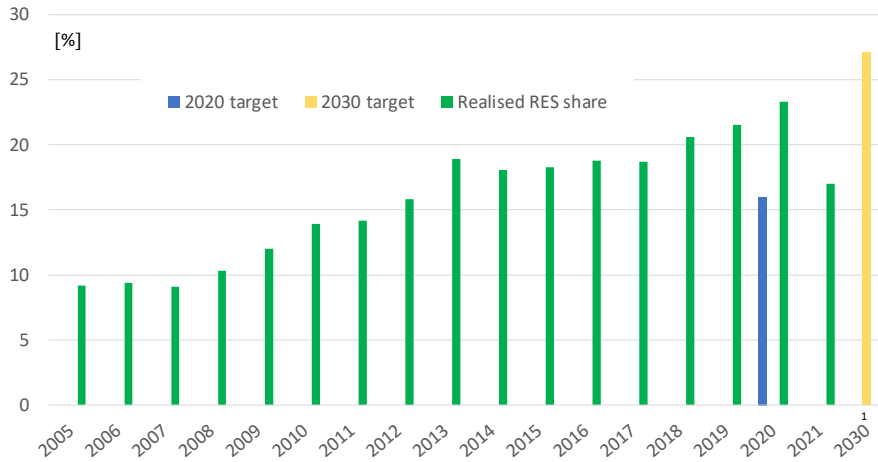


Bulgaria

Renewable energy status

Share of energy from renewable sources in total gross final energy consumption



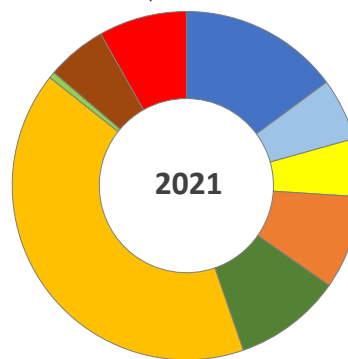
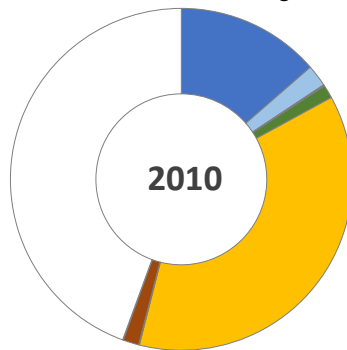
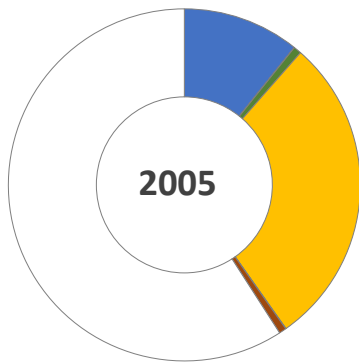
Source: Eurostat

Abbreviations used:

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

Data for 2021

Overall RES share:	17.0%	Avoided fossil fuels:	2.7 [Mtoe]
Overall RES 2020 target:	16%	Avoided fuel expenses:	736 [MEUR]
Overall RES 2030 target:	27.09%	RES Turnover:	1 070 [MEUR]
Share RES-E in electricity:	18.8%	RES Employment:	21 100 [jobs]
Share RES-T in transport:	7.6%	RES imports ² :	157 [MEUR]
Share RES-H/C in heating:	25.6%	RES exports ² :	65 [MEUR]



- Hydropower
- Wind power
- Solar PV and CSP
- Solid biofuels
- RES in transport
- Renewable heat consumed
- Renewable heat derived
- Heat pumps
- All other renewables
- Gap towards 2020

Source: Eurostat

	2005		2010		2021		
	Energy in ktoe		Energy in ktoe		Energy in ktoe	Employment in FTE	Turnover in MEUR
Hydropower	270.4	342.7	349.1	800	50		
Wind power	0.5	52	135.2	700	50		
Solar PV, and CSP	0	1.3	126.1	1 800	100		
Solid biomass	0	1.7	204.0	12 200	530		
Ren. energy in transport ³	18.0	31.7	234.1	3 100	200		
Renew. heat consumed	723.2	928.9	960.9				
Renew. heat derived	0.7	1.9	13.8				
Heat pumps	16.7	37.8	130.9	700	40		
All other renewables	0	1.3	19.5	1 800	100		
Gap towards 2020	1 487.8	1 118.1					

Source: Eurostat, EurObserv'ER

FTE = Full time equivalent, 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 auto-producer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).

¹ From Integrated National Energy Climate Plan

² Referring to the International Trade chapter from the publication: EurObserv'ER - *The State of Renewable Energy in Europe, 2022 edition*

³ Employment and turnover are only referring to biofuels in transport.



CURRENT RENEWABLE ENERGY POLICY

RES-E

In Bulgaria, electricity from renewable sources is mainly promoted through feed-in premiums. As of 1 July 2018, feed-in tariff contracts with RES-E producers with an installation of at least 4 MW capacity were terminated and the producers concerned RES producers, which enjoyed feed-in tariffs have been offered to enter into a feed-in premium contract. Pre-existing renewable electricity producers with a plant below the 4 MW capacity threshold remain eligible to a feed-in tariff. New rooftop or facade photovoltaic installations with a maximum installed capacity of 30 kW and to certain installations using combined cycle and indirect use of biomass are eligible to a feed-in tariff as well.

RES H&C

The use of renewable energy for heating and cooling is promoted through a grant from the Bulgarian Energy Efficiency Fund and through an exemption for building owners from property tax. In general, all heating technologies are eligible for support. Buildings with a useful total built-up area (TBA) over 500 square meters and which are occupied by a public body or frequently visited by citizens are subject to an obligatory energy efficiency audit and have to provide an energy performance certificate. Any investment project for a new building with a total floor coverage of over 1 000 m² must comply with the possibilities of using decentralised systems for the use of renewable energy. In these buildings, at least 15 percent of the total heating and cooling needed for the building shall have to be produced from renewable sources.

RES-T

The main support scheme for renewable energy sources used in transport is a biofuel quota system. This scheme obliges companies importing or producing petrol or diesel to ensure that biofuels make up a pre-defined percentage of their annual fuel sales. Furthermore, biofuels are supported through a tax credits mechanism: a reduced rate of excise duty is applied to unleaded petrol or gas oil if a share of more than 4% of bioethanol or biodiesel has been added. Electric vehicles are exempted from annual registration tax and receive a 30% reduction on sales tax, whilst plug-in hybrids get a 15% sales tax reduction. Furthermore, there is a purchase grant available for BEVs and various class vehicles.

Table 1: Brief description of key policy instruments aimed at promoting RES in Bulgaria

<i>Instrument</i>	<i>Description</i>
Feed-in tariffs	Guaranteed sale of electricity at a pre-set preferential price during the support contract period. For RES-E and RES-H&C projects commissioned before February 2015. Apart from certain small-scale projects, new projects do not get feed-in support.
Feed-in premium	From July 2018 all RES-E producers with a total installed capacity of at least 4 MW are obliged to sell their electricity on the exchange (Art. 33a Energy Act). The premium tariff is set annually as a difference between the current fixed feed-in tariff and the forecasted market price.
Investment subsidies	RES-H&C projects are eligible for a grant from the Bulgarian Energy Efficiency and Renewable Sources Fund (EERSF) for well proven energy saving technologies.
Tax credits scheme	Renewable heating & cooling installations in buildings are eligible for a tax deduction or complete exemption from property tax for building owners.
Biofuels quota scheme	Persons introducing liquid fuels of crude oil origin for transportation shall be obliged to offer market fuels for diesel and petrol engines blended with biofuels. Importers/suppliers of transport fuels are subject to a renewable quota scheme for biofuels. Compliance based on sample testing rather than certificates-based. No (direct) incentives for other alternative transport fuels.

For further information:

CEER, 2021. Status Review of Renewable Support Schemes in Europe for 2018 and 2019.
<https://www.ceer.eu/documents/104400/-/-/ffe624d4-8fbb-ff3b-7b4b-1f637f42070a>

European Alternative Fuels Observatory,
<https://alternative-fuels-observatory.ec.europa.eu/transport-mode/road/Bulgaria>

European Commission, 2020. Assessment of the draft integrated National Energy and Climate Plan of Bulgaria. SWD(2020) 225.
https://ec.europa.eu/energy/sites/ener/files/documents/staff_working_document_assessment_necp_bulgaria.pdf

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>

Government of Bulgaria, 2020. INTEGRATED ENERGY AND CLIMATE PLAN OF THE REPUBLIC OF BULGARIA 2021-2030.
https://ec.europa.eu/energy/sites/ener/files/documents/bg_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/bulgaria/>

What is meant by ...?

Auctions for granting renewable energy support	An auction is a process of granting production or investment support to renewable energy projects based on the lowest bids by eligible project developers.
Feed-in tariff (FiT)	A support scheme which provides for a technology-specific remuneration per unit of renewable energy payable to eligible renewable energy producers. A proper, periodic review of FiT rates is often undertaken with the aim to prevent both too high FiTs so as to minimise regulatory rents, i.e. supra-normal returns and too low FiTs to preclude below-target market uptake because of FiT levels that are perceived by market participants to be less attractive. In addition, feed-in tariffs often include "tariff degression", a mechanism according to which the price (or tariff) ratchets down over time.
Feed-in premium (FiP)	A scheme which provides for a support level per unit of renewable energy to eligible renewable energy producers, typically for a period of 10-20 years, at a pre-set fixed or floating rate. The premium is typically adjusted periodically to exactly offset change in the average energy wholesale market price, based on a pre-specified benchmark market price. A floating FiP may move freely or may only be allowed to move within a pre-set interval.
Grants	Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. (Source: Wikipedia.org)
Green public procurement	In Green public procurement contracting authorities take environmental issues into account when tendering for goods or services. The goal is to reduce the impact of the procurement on human health and the environment. (Source: Wikipedia.org)
Renewable quota scheme (RQS)	A RQS mandates certain market actors (typically retail suppliers or large energy end-users) to respect a pre-set minimum share or amount of their total energy procurements from renewable sources of energy. Typically a tradable green certificate (TGC) scheme is operated to enable the obligated parties to prove their compliance with the prevailing renewable quota target by means of TGCs.
Sliding feed-in-tariff	A FiT scheme which pre-sets technology-specific declining feed-in tariffs for certain prospective vintages in line with the technology-specific learning curve, as projected by the National Regulatory Agency (NRA). Often a degression rate is used indicating the %/annum decrease in the rate level.
Soft loans	Loans at concessional (below market-based) terms, for example at sub-market-conform interest rates, made available in several Member States to stimulate certain renewable energy technologies.
Tax credits	These are amounts a tax paying entity is allowed to deduct when declaring payable taxes, for example company tax or income tax, to the tax authorities, for example the producer tax credits (PTCs) used in the United States to stimulate among others wind energy deployment.



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