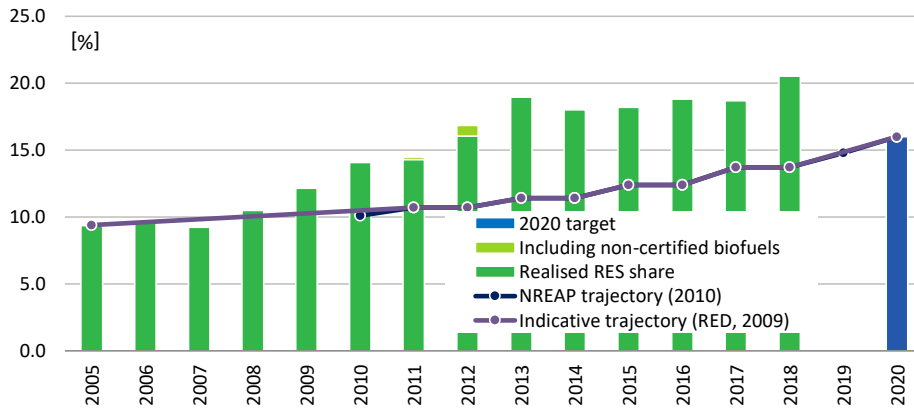


Summary

Renewable electricity in Bulgaria is promoted primarily through a feed-in premium scheme for renewable power plants with a capacity of 4 MW or higher. For such plants below 4 MW a feed-in tariff scheme is in place. The grid operator is mandated to purchase and dispatch electricity at a guaranteed price for eligible generators. The use of renewable energy for heating and cooling is promoted through a subsidy from the European Regional Development Fund, several loan schemes, and through an exemption for building owners from property tax. Main Bulgarian support scheme for renewable energy in transport is a biofuels quota scheme. Furthermore, biofuels are fostered by means of a fiscal regulation mechanism. There is a professional training programme for RES-installers as well as a building obligation for the use of renewable heating and for the exemplary role of public authorities.



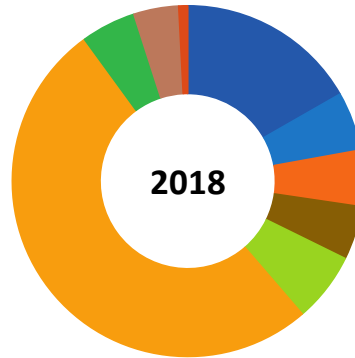
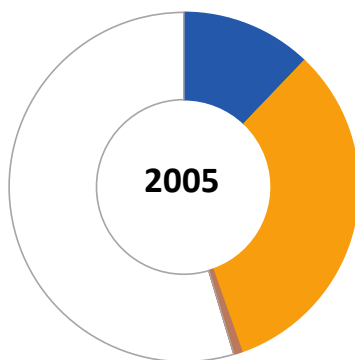
Source: EEA, Eurostat

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:	20.5%	Avoided fossil fuels:	3.7 [Mtoe]
Overall RES 2020 target:	16.0%	Avoided fuel expenses:	0.8 [billion euro]
Share RES-E in electricity:	22.1%	RES Turnover:	1580 [MEUR]
Share RES-T in transport:	8.1%	RES Employment:	41100 [jobs]
Share RES-H/C in heating:	33.3%		



- 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	270.4 ktoe		373.1 ktoe	2300 Jobs	120 MEUR
Wind power	0.5 ktoe		121.1 ktoe	500 Jobs	30 MEUR
Solar PV, CSP and water heaters	0.0 ktoe		115.5 ktoe	1900 Jobs	80 MEUR
Solid biomass	0.0 ktoe		110.1 ktoe	27000 Jobs	990 MEUR
Biofuels in transport	0.0 ktoe		142.9 ktoe	7500 Jobs	270 MEUR
Renewable heat consumed	723.2 ktoe		1144.2 ktoe		
Renewable heat derived	0.7 ktoe		112.7 ktoe		
Heat pumps	16.7 ktoe		92.4 ktoe	600 Jobs	30 MEUR
All other renewables	0.0 ktoe		18.3 ktoe	1300 Jobs	60 MEUR
Gap towards 2018	1218.5 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

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 roof top 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.

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 1000 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.

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.

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 targets for year 2030 for the share of renewable energy and gross final energy consumption in the draft National Energy and Climate Plan of Bulgaria are shown in Table 1 below.¹

Table 1: Overview of Bulgaria'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 (%)	20.5	20.0	25.0	Below 27% (result of RES formula)
Final energy consumption (Mtoe)	9.9	8.6	8.7	Low

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

¹ Other factors remaining the same, gross final energy consumption reduction (energy efficiency improvement) boosts the share for renewables in gross final energy consumption.

Based on the formula contained in Annex II of the Governance Regulation, Bulgaria's renewables share would have to reach the level of 27% in 2030 (European Commission, 2019) against the historical rate of 20.5% in 2018. Hence, the European Commission (2019) assessed that the draft NECP fell slightly short in ambition level regarding the **25%** target for year 2030. This target share can be reached with existing measures. The Commission recommended to design and implement additional measures enabling to reach a share of 27% by 2030. The gross final energy consumption in 2030, targeted at **8.7 Mtoe**, against 9.9 Mtoe according to latest available data was qualified by the European Commission to show a low ambition level.

The final Integrated National Energy and Climate Plan (INECP) of Bulgaria, enumerating targets for year 2030 and specifying policies and measures towards these targets, were prepared by the Ministry of Energy and the Ministry of the Environment and Water. As for the national targets, Bulgaria has raised its year 2030 target for the share of renewables in gross final energy consumption level to **27.09 %**, in line with the share, resulting from the application of the formula contained in Annex II of the Governance Regulation. To do so, Bulgaria will expand its generating capacity with an emphasis on wind and solar power. If necessary for achieving the targets set after 2025, tenders for additional renewable energy capacity may also be conducted, taking market conditions into account. Biomass use is projected to increase in all sectors — electricity, heat and cooling, and transport. Bulgaria's INECP sets a 2030 target for gross final energy consumption of **10.318 Mtoe**. Achieving a lower energy consumption level, without foregoing economic growth, enables attainment of the targeted 27.09 % renewables share with lesser intensification of additional renewables development measures.

OVERVIEW OF MAIN SUPPORTING POLICIES

Tables 2 and 3 provide an overview of support instruments used to promote the deployment of renewable energy in Bulgaria.

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

	NON-FISCAL SUPPORT SCHEMES						FISCAL AND OTHER STATE FUNDED INCENTIVES			
	Feed-in tariffs ¹⁾	Feed-in premium	Tenders	Quota obligation with Tradable Green certificates	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Investment subsidies ²⁾	Tax credits mechanism I ³⁾	Tax credits mechanism II	Soft loans
RES-E										
- Offshore wind										
- Onshore wind										
- Solar	x									
- Hydro										
- Geothermal										
- Solid biomass	x									
- Biogas	x									
RES-H/C										
- Solar thermal	x						x	x		
- Geothermal	x						x	x		
- Biomass	x						x	x		
- Biogas	x						x	x		
- Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves	x						x	x		
- Others, i.e. aerothermal, hydrothermal	x						x	x		
RES-T										
- Bio gasoline					x			x		
- Biodiesel					x			x		

1) Since 1 January 2016 open to new small-scale projects (PV and biomass-based CHP) up to 30 kW only.

2) Grant from the Bulgarian Energy Efficiency Fund.

3) Investments in renewable heating & cooling installations in buildings are tax-deductible from property tax for building owners.

Sources: RES-Legal Europe (2019), EurObserv'ER

Table 3: Overview of instruments used at present to stimulate the uptake of renewables 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.
Investment subsidies	RES-H&C projects are eligible for a grant from the Bulgarian Energy Efficiency Fund
Tax credits scheme	Renewable heating & cooling installations in buildings are eligible for an exemption from property tax for building owners.
Tax credits scheme	Investments in renewable heating & cooling installations in buildings are tax-deductible from property tax for building owners.
Biofuels quota scheme	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.

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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>

National Energy and Climate Plan (NECP), available at the NECPs pages of the European Commission,

https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

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