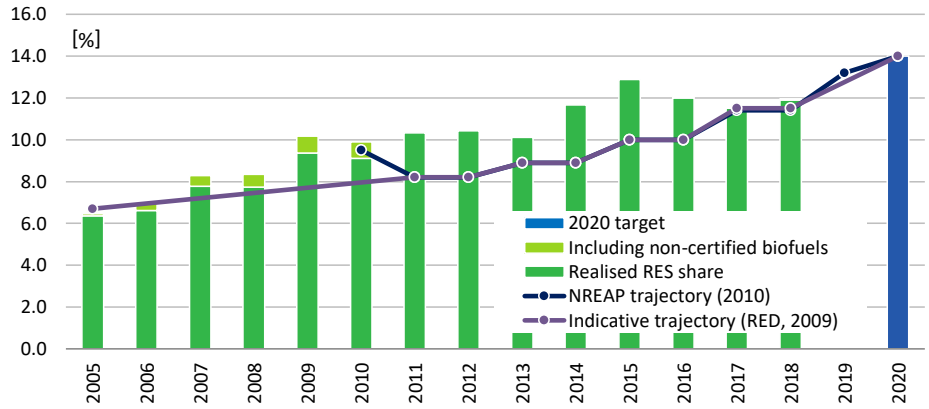
Slovakia

Renewable Energy Policy Factsheet

October 2020

Summary

Since 1 January 2019 the main support scheme for electricity from renewable energy sources generated through new installations ≥ 500 kW is an auction based feed-in premiums scheme, whilst for "local energy installations" < 500 kW subsidies are available. Before 1 January 2019 a feed-in tariffs scheme was the main support scheme for new renewable electricity plants. For operators of photovoltaics (PV) and onshore wind installations an investment subsidy instrument is available as well. Besides, the sale of produced renewable electricity is incentivized by an exemption from excise duty. Also renewable heat production installations are eligible for an investment subsidy instrument. For renewable transport fuels a biofuels quota scheme is in place. Moreover, producers/suppliers of biofuels and petroleum fuels blended with biofuels benefit from a mineral oil tax exemption.



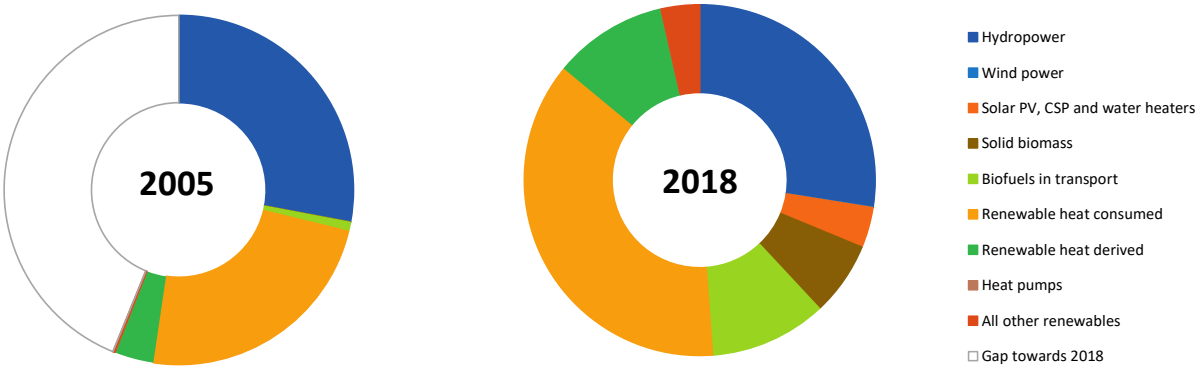
Source: EEA, Eurostat

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:	11.9%	Avoided fossil fuels:	2.2 [Mtoe]
Overall RES 2020 target:	14.0%	Avoided fuel expenses:	0.7 [billion euro]
Share RES-E in electricity:	21.5%	RES Turnover:	1170 [MEUR]
Share RES-T in transport:	7.0%	RES Employment:	20900 [jobs]
Share RES-H/C in heating:	10.6%		



Source: Eurostat, 2020.

	2005	2018		
	Energy	Energy	Employment	Turnover
Hydropower	376.7 ktoe	370.7 ktoe	1200 Jobs	100 MEUR
Wind power	0.6 ktoe	0.5 ktoe	<100 Jobs	<10 MEUR
Solar PV, CSP and water heaters	0.0 ktoe	50.3 ktoe	300 Jobs	20 MEUR
Solid biomass	0.3 ktoe	92.0 ktoe	11300 Jobs	430 MEUR
Biofuels in transport	11.2 ktoe	145.4 ktoe	4000 Jobs	310 MEUR
Renewable heat consumed	317.3 ktoe	501.5 ktoe		
Renewable heat derived	49.1 ktoe	141.0 ktoe		
Heat pumps	0.0 ktoe	0.0 ktoe	2400 Jobs	180 MEUR
All other renewables	2.4 ktoe	47.7 ktoe	1600 Jobs	120 MEUR
Gap towards 2018	591.6 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 energy sources* is a feed-in tariff scheme. The sale of generated renewable electricity is incentivised by an exemption from excise duty. For operators of PV and onshore wind installations an investment subsidy instrument is available from the Operational Programme Quality of Environment funded by the European Regional Development Fund (ERDF).

Since 1 January 2019 the main support scheme for *electricity from renewable energy sources* generated through new installations ≥ 500 kW is an auction based feed-in premiums scheme, whilst for "local energy installations" < 500 kW subsidies are available. The call for tenders of first technology-neutral, public RES-E, static pay-as-bid auction was launched on 3 February 2020 (REKK, 2020; PV Magazine, 2020; ListSolar, 2020) with 30 April 2020 as final submission date. An expected total installed capacity of about 30 MW would benefit. The ceiling bid price was set at €84.98 / MWh for wind power and PV installations and €106.80 / MWh for other RES-E technologies. Successful projects would secure 15-year feed-in premium payments on top of the wholesale electricity price. Eligible PV projects would range from 100 kW to 2 MW, whilst the capacity range for project bids using other renewable electricity technologies were to range from 500 kW to 10 MW. However, on 31 March 2020 the first auction was cancelled with the COVID-19 pandemonium as stated reason (REKK, 2020). The investment climate has been negatively affected by the cancellation (REKK, 2020).

Before 1 January 2019 a feed-in tariff (FiT) scheme was the main support scheme for new renewable electricity plants. Distribution system operators have to procure the electricity from operators of FiT-eligible plants and to arrange to bring it to the market. In principle all renewable generation technologies are eligible, if with source-specific capacity upper limits. For operators of photovoltaics (PV) and onshore wind installations < 10 MW capacity, an investment subsidy instrument is available as well from the Operational Programme Quality of Environment. This programme is co-funded for 85% by the European Regional Development Fund (ERDF). Besides, the sale of produced renewable electricity is incentivized by an exemption from the excise duty on electricity consumption to the tune of € 1. 32 / MWh. Renewable power plants ≥ 10 MW are reported to face great difficulties in obtaining a grid connection (Melichar, 2018).

Also for the promotion of *renewable heat* successfully applying developers of renewable heat producing projects an investment subsidy instrument is available from the Operational Programme Quality of Environment, 85% co-funded by the ERDF. RES-H building obligations foster renewable heat and roof-top PV. A professional training programme is available to RES-installers.

The main support scheme for *renewable transport fuels* is a biofuels quota scheme. This scheme obliges companies importing or producing petrol or diesel to ensure that biofuels make up a defined percentage of their annual transport fuel sales volume. Furthermore, biofuels are fully exempted and the biofuels part of blended transport fuels are partially exempted (proportionate to the share of biofuels component) of the mineral oil tax. For battery and plug-in electric vehicles purchase subsidies have been phased out since 1 January 2019. Battery electric vehicles are exempt to the annual ciculation (road) tax and the registration tax for a BEV is as little as €33. In several cities parking discounts apply for BEVs.

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 Latvia – regarding the targets for year 2030 for the share of renewable energy and gross final energy consumption only[1] – is shown in Table 1 below.

Table 1: Overview of Slovakia'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 (%)	11.9	14.0	18.0	Below 24% (result of RES formula)
Final energy consumption (Mtoe)	11.1	9.2	10.8	Low

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

Based on the formula contained in Annex II of the Governance Regulation, Slovakia's renewables share would have to reach the level of at least 24% in 2030 (European Commission, 2019) against the historical rate of 11.9% in 2018 (eurostat, 2020a). The European Commission (2019) concludes that the proposed RES share by 2030 of **18%** is significantly below the 24% share resulting from the formula in Annex II of the Regulation. The Commission deems the ambition level of the proposed **3.6 Mtoe** as Slovakia's proposed contribution to the EU 2030 target for final energy consumption to show a modest ambition level, considering the level of efforts required at the EU level to collectively reach the Union's 2030 efficiency target. In 2018 Slovakia's gross final energy consumption amounted to **11.1 Mtoe** (eurostat, 2020b).

Slovakia's final National Energy and Climate Plan (NECP) raises the target for the renewables share by year 2030 to **19.2%** compared to 18% proposed in its draft NECP. The 19.2% target share still falls short by a wide gap of 4.8%, compared to the share resulting from the formula in Annex II of the Governance Regulation. The bulk of the 19.2% renewables is to be accounted for by solid biomass and biogas/biomethane with modest contributions from wind and solar. To achieve the 19.2% target, Slovakia has enumerated a spate of existing and additional policies and measures, such as e.g. (Government of Slovakia, 2019):

[1] Gross final energy consumption is included as well as its level 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.

- Biofuels quota for transport fuels: maintaining a share of 7% from foodcrops, whilst achieving a 3.5% share from advanced biofuels by 2030. The latter warrants market stimulation of 2nd generation biofuels
- Promoting RES-E through auctions and (up to 500 kW) feed-in tariffs
- Stimulating distributed RES-E generation and self-generation for households electricity and heating needs
- Support for the renovation of district heating pipes
- Support for the introduction of low-power electricity and heat generation installations in family houses and apartment buildings
- Creation of a support mechanism to increase the RES share in the heating sector and in district heating systems, also through generation from RES in high-efficiency cogeneration. Integration of RES in the form of biomethane mainly derived from plant and animal production waste, the biodegradable part of municipal waste, biodegradable kitchen and restaurant waste, and waste water treatment plant waste. Introduction of a RES quota obligation for district heating systems
- Support for biomethane and hydrogen production
- Support for recovery of bio residues and waste heat.

As for Slovakia's contribution to the EU energy efficiency target for year 2030, in its final NECP Slovakia sets a realistic target of **10.44 Mtoe** and a target, deemed ambitious by the Slovakian government of **10.27 Mtoe**. These levels are indeed somewhat more ambitious, compared to the corresponding level proposed in the draft NECP of Slovakia, i.e. 10.8 Mtoe.

OVERVIEW OF MAIN SUPPORTING POLICIES

The main RES support measures applied in the Slovak Republic are epitomized 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 the Slovak Republic

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

1) With effect of 1 January 2019

2) Granted by the Operational Programme Quality of Environment, co-funded for 85% by the European Regional Development Fund (ERDF)

3) Exception from excise duty for generators of renewable electricity from renewable energy sources

3) Biofuels are fully exempted and the biofuels part of blended transport fuels are partially exempted (proportionate to the share of biofuels component) of the mineral oil tax

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

Table 3: Overview of main instruments used at present in the Slovak Republic

Instrument	*Description*
Feed-in premiums	Since 2019: a production subsidy on top of sales into the power market during the support contract period for operators of new renewable electricity plants who made a successful tender bid
Tenders	Since 2019, for allocation of feed-in premium support contracts
Feed-in tariffs	For renewable power plants commissioned before 2019: a guaranteed electricity price during the support contract period.
Investment subsidies	Available for successful applicants among project developers of wind power and PV projects and renewable heat production projects from the Operational Programme Quality of Environment funded by the ERDF.
Quota schemes without certificates	Importers/suppliers of transport fuels are subject to a renewable quota scheme for biofuels. Compliance based on sample testing rather than certificates-based.
Tax credits (1)	RES-E producers are exempt from excise duty.
Tax credits (2)	Biofuels are fully exempted and the biofuels part of blended transport fuels are partially exempted (proportionate to the share of biofuels component) of the mineral oil tax
Soft loans	Granted by the National Fund for Environmental Protection and Water Management

For further information:

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

PV Magazine, 2020. Slovakia launches first renewables auction. On-line article, 26 February https://www.pv-magazine.com/2020/02/26/slovakia-launches-first-renewables-auction/

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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/slovakia/

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

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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