

Slovakia

Renewable energy status

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



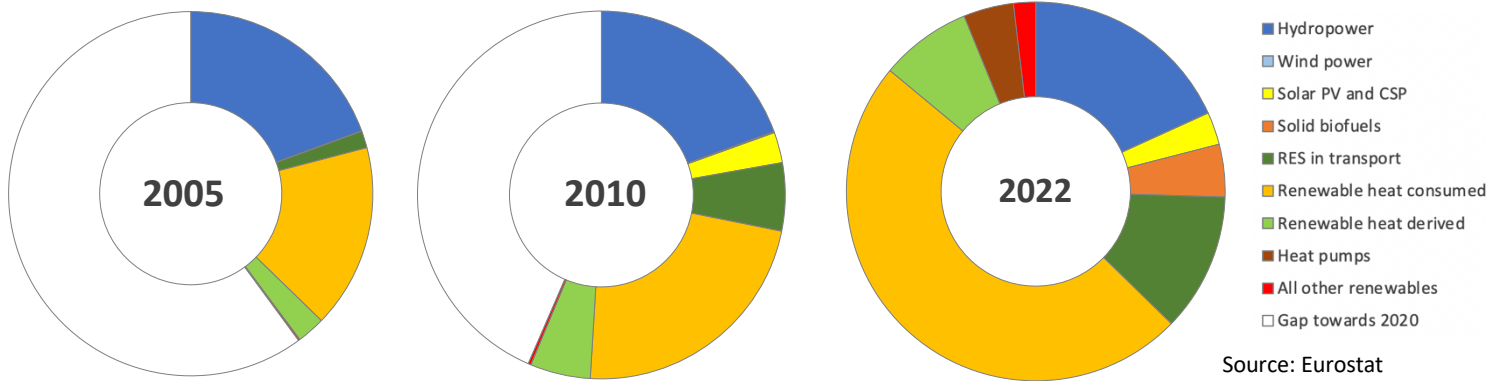
Source: Eurostat

Abbreviations used:

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

Data for 2022

Overall RES share:	17.5%	Avoided fossil fuels:	1.5 [Mtoe]
Overall RES 2020 target:	14.0%	Avoided fuel expenses:	1 336 [MEUR]
Overall RES 2030 target:	23.0%	RES Turnover:	1 290 [MEUR]
Share RES-E in electricity:	22.9%	RES Employment:	17 000 [jobs]
Share RES-T in transport:	8.9%	RES imports ² :	102 [MEUR]
Share RES-H/C in heating:	19.9%	RES exports ² :	127 [MEUR]



Source: Eurostat

	2005		2010		2022		
	Energy in ktoe		Energy in ktoe		Energy in ktoe	Employment in FTE	Turnover in MEUR
Hydropower	376.7	376.9	366.2	500	40		
Wind power	0.6	0.4	0.5	<100	<10		
Solar PV, and CSP	0.0	1.5	55.9	300	30		
Solid biomass	0.3	52.1	90.2	7 600	500		
Ren. energy in transport ³	29.1	116.3	238.1	4 300	350		
Renew. heat consumed	317.3	443.0	980.7				
Renew. heat derived	49.1	103.1	157.2				
Heat pumps	0.0	0.0	86.3	3 600	300		
All other renewables	2.4	4.8	37.9	600	60		

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

RES-E

The main support scheme for electricity from renewable energy sources is through a feed-in tariff. Energy companies are obliged to purchase and pay for electricity that is exported to the grid. Renewable energy installation operators (PV and wind) can receive subsidies under the Operational Programme Quality of Environment. The sale of generated renewable electricity is also incentivized by an exemption from excise tax.

RES H&C

For operators of renewable energy plants there is financial support through subsidies funded by the European Regional Development Fund. Technologies included are biomass, biogas, aerothermal, hydrothermal, solar thermal or geothermal plants. The switch to renewable energy sources for use in district heating networks is supported through the support scheme for high-efficient cogeneration of electricity and heat in district heating networks. Building energy efficiency obligations also foster the use of renewable heat. A professional training programme is available to RES-installers.

RES-T

Renewable energy use in transport is mainly supported through a biofuels quota scheme, which obliges companies importing or producing gasoline, gas or diesel fuels to comply with a pre-set minimum biofuels quota with regard to their annual fuel sales. Furthermore, biofuels are fully exempted, and the biofuels of blended transport fuels are partially exempted (proportionate to the share of biofuels component) of the mineral oil tax.

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

<i>Instrument</i>	<i>Description</i>
Feed-in premiums	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.
Feed-in tariff	The feed-in tariff consists of two parts: the price of electricity for losses (market price) and a surcharge. The surcharge only applies to roof-top or façade integrated installations up to 30 kW. Regional distribution system operators are obliged by the state to purchase and pay for electricity from renewable energy sources.
Investment subsidies	Households can receive financial support for installations of PV, solar collectors, biomass boilers and heat pumps. Furthermore, plant operators may receive subsidies for the support of RES from the Operational Programme Quality of Environment funded by the ERDF. Incentive scheme for support for electricity generation from renewables - URSO determines the purchase price of produced electricity according to Decree.
Support scheme for high-efficient cogeneration of electricity and heat for district heating networks	A scheme aiming, amongst other things, to incentivize the switch from coal to renewable sources for CHPs for district heating networks. The support will be granted for a maximum period of 15 years, and the overall budget of the scheme amounts to €1050 million (€70 million/year).
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	RES-E producers are exempt from excise tax. 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:

CEER, 2023. Status Review of Renewable Support Schemes in Europe for 2020 and 2021. <https://www.ceer.eu/documents/104400/-/-/6c2376e9-7072-a1c1-0b8e-7b7954e17264>
European Alternative Fuels Observatory, <https://alternative-fuels-observatory.ec.europa.eu/transport-mode/road/Netherlands>

European Commission, 2020. Assessment of the final National Energy and Climate Plan of Slovakia. SWD(2020) 924 final. Brussels, 14 October.
https://energy.ec.europa.eu/system/files/2021-01/staff_working_document_assessment_necp_slovakia_en_0.pdf

European Commission, 2021. State aid: Commission approves over €1 billion support for high-efficient cogeneration of electricity and heat in Slovakia.
https://ec.europa.eu/commission/presscorner/detail/en/ip_21_1023

Eurostat, 2022. Renewable energy statistics;
https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics

Government of Slovakia, 2019. Integrated National Energy and Climate Plan 2021-2030; Slovakia. Bratislava, December
https://ec.europa.eu/energy/sites/ener/files/sk_final_necp_main_en.pdf

International Energy Agency (IEA) database on policies and measures.
<https://www.iea.org/policies?topic=Renewable%20Energy>

International Energy Agency (IEA), 2018. Slovak Republic Energy Policy Review.
<https://iea.blob.core.windows.net/assets/7721817f-2d56-499a-866d-157873e3318b/2018SlovakRepublic.pdf>

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

REN21, 2021. Global Status Report 2021. https://www.ren21.net/wp-content/uploads/2019/05/GSR2021_Full_Report.pdf

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

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.



Disclaimer

This document was prepared by the EurObserv'ER consortium, which groups together Observ'ER (FR), TNO (NL), RENAC (DE), VITO (BE) and Fraunhofer ISI (DE). This document has been prepared for the European Commission however it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.