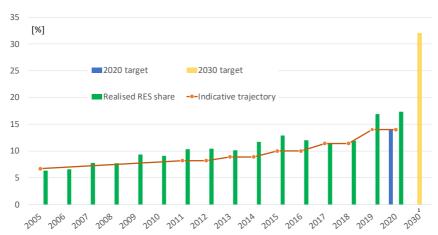


Slovakia

Renewable energy status

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



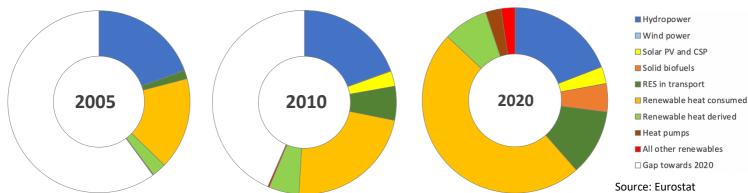
Source: Eurostat

Abbreviations used:

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

Data for 2020

Overall RES share:	17.34%	Avoided fossil fuels:	1.3 [Mtoe]
Overall RES 2020 target:	14%	Avoided fuel expenses:	288 [MEUR]
Overall RES 2030 target:	32%	RES Turnover:	1 070 [MEUR]
Share RES-E in electricity:	23.07%	RES Employment:	13 900 [jobs]
Share RES-T in transport:	9.26%	RES imports ² :	48 [MEUR]
Share RES-H/C in heating:	19.43%	RES exports ² :	76 [MEUR]



_	2005	2010	2020		
	Energy in ktoe	Energy in ktoe	Energy in ktoe	Employment in FTE	Turnover in MEUR
Hydropower	376.7	376.9	371.3	500	40
Wind power	0.6	0.4	0.5	<100	<10
Solar PV, and CSP	0.0	1.5	57.0	300	30
Solid biomass	0.3	52.1	96.3	4 700	300
Ren. energy in transport ³	29.1	116.3	223.3	4 100	340
Renew. heat consumed	317.3	443.0	942.5		
Renew. heat derived	49.1	103.1	152.5		
Heat pumps	0.0	0.0	51.8	3 500	290
All other renewables	2.4	4.8	47.5	700	60

Gap towards 2020 1 167.2 844.6 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 autoproducer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).

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



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, 2021 edition

CURRENT RENEWABLE ENERGY POLICY

RES-E

The main support scheme for electricity from renewable energy sources generated through new installations ≥ 500 kW is an auction based feed-in premiums scheme. For "local energy installations" < 500 kW there are subsidies available. Households can receive financial support for PV installations through the "Green Households" programme. The sale of generated renewable electricity is also incentivized by an exemption from excise duty.

RES H&C

For the promotion of renewable heat and cooling there is financial support through the "Green Households" programme. Technologies included are solar collectors, biomass boilers and heat pumps. 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

Instrument	Description
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.
Investment subsidies	Households can receive financial support for installations of PV, solar collectors, biomass boilers and heat pumps. Website: https://zelenadomacnostiam.sk/sk/domacnosti/podmienky-podpory/
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.
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 duty. 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, 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/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 highefficient 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/netherlands/

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

<u>Instrument</u>	<u>Description</u>
Premium tariff Complément de Rémuneration	Premium tariffs are allocated through a quasi-tendering process, where energy producers compete against each other for feed-in premium support. For all RES technologies, FiP are reachable through calls for tenders auction published by Authority. The aim is to pilot the technologies growth as close as possible to the RES investment program define by the government in October 2018. Website: http://www.ecologique-solidaire.gouv.fr/index.php/dispositifs-soutien-aux-energies-renouvelables
RES-H building obligations Réglementation thermique	The thermal regulation 2012 obliges new buildings to comply with minimum energetic performance requirements as defined by the label BBC-Effinergie. Since 2012, the use of renewable energies in order to reach energetic performance requirements (including the use of sanitary hot water and heating devices) is mandatory for single-family houses (Art. 16 arrêté du 26 octobre 2010). The thermal regulation 2012 applies for new buildings as follows: • For service sector buildings and residential buildings situated within a national renovation programme area: from 28 October 2011 • For residential buildings situated within 500 meters of a national renovation programme area: from 1 March 2013 • For other residential buildings: from 1 January 2013 As far as existing buildings are concerned, buildings of the service sector and public service sector are obliged from January 2012 to improve their energetic performance by 2020 (Art L 111-10-3 Code de la construction et de l'habitation), including renewable energy plants for heating purposes. Except single-family houses, there are no RES-H building obligations directly supporting the use of heating systems from renewable energy sources. However, RES-H can be required indirectly through the energetic performance obligations.
Heat Fund scheme Fonds chaleur	The Heat Fund, managed by ADEME since 2009, is dedicated to renewable heat production in collective housing, communities and businesses. The fund can participate to a project financing up to 30% of its total amount. During the period 2009-2018, the heat Fund allocated 2.17 billion euros to support nearly 4,820 projects and a total production of 2.38 million toe. Website: http://www.ademe.fr/expertises/energies-renouvelables-enr-production-reseaux-stockage/passer-a-laction/produire-chaleur/fonds-chaleur-bref
RES premium MaPrimeRenov	MaPrimeRénov 'is a new public support tool that simplifies aid for energy renovation. It can finance a wide variety of insulation, ventilation or heating changes including RES equipment,. To be eligible for MaPrimeRénov ', you need : be the owner of a home built for more than 2 years; occupy it as a main residence; not exceed the resource limit and have the work carried out by a RGE labeled company. Website: https://www.maprimerenov.gouv.fr
Investments for the Future programme Programme investissement d'avenir	The Investments for the Future programme is intended to support projects fostering innovation and the creation of non-relocatable jobs in sectors with strong potential for the French economy. It is a matter of strengthening France's strategic competitive advantages. The implementation of the Investments for the Future program is steered by the General Investment Commission (CGI). It is supported by several operators, including ADEME, which is responsible for innovation for energy and ecological transition. RES technologies and smart electricity grids are eligible to this programme. Website: http://www.ademe.fr/en/investments-for-the-future
Training programmes for Installers Référencement RGE	The association Qualit´EnR was established in 2006 as an initiative of five national professional organisations in order to promote quality installations in the field of solar thermal energy, photovoltaic, biomass as well as heat pumps and geothermal probes. The association was established for private households willing to install a renewable energy plant, with the aim to ensure them a quality installation.

Biofuel quota (Réduction de la taxe générale sur les activités polluantes TGAP)

The act on energy transition of 2015 sets a target of 10% renewable energies in the total energy consumption of the transport sector by 2020 and of at least 15% by 2030. In order to reach these targets, the quota of biofuels to be blended within conventional fuels is defined for each fuel type. In case companies releasing fuel for consumption do not respect the biofuels quota, they are submitted to a higher rate of the tax on polluting activities (TGAP).

For further information:

Details of the French Heat Fund, http://www.fonds-chaleur.ademe.fr

Feed-in Premium French scheme, http://www.ecologique-solidaire.gouv.fr/index.php/dispositifs-soutien-aux-energies-renouvelables

French Energy investment program, http://www.ecologique-solidaire.gouv.fr/sites/default/files/PPE%20int%C3%A9gralit%C3%A9.pdf

French RES-E sectors barometer, http://www.energies-renouvelables.org/observ-er/html/energie-renouvelable-france.asp
Official French RES data, https://www.statistiques.developpement-durable.gouv.fr

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

Individual RES investment support scheme, https://www.maprimerenov.gouv.fr

National Energy and Climate Plans (NECPs), https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/governance-energy-union/national-energy-climate-plans

What is meant by ...?

Auctions for granting

An auction is a process of granting production or investment support to renewable energy projects based on the lowest bids by eligible project developers.

renewable energy

support 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-intariff 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.