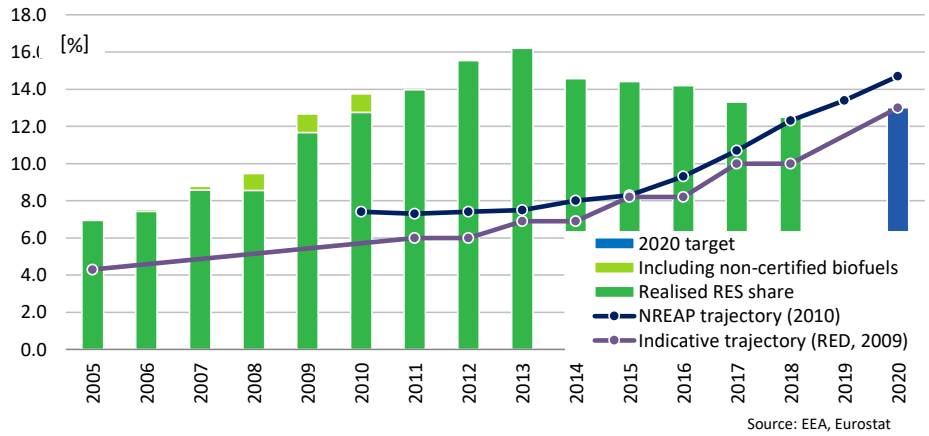
Hungary

Renewable Energy Policy Factsheet

October 2020

Summary

In Hungary, electricity from renewable energy sources is supported by a feed-in-tariff for installations with a capacity of 50 kW-500 kW or a feed-in ('green') premium for installations with a capacity of 0.5-1 MW. Plants with a capacity >1 MW and generally all wind power plants have to successfully participate in tenders in order to receive a feed-in premium. Currently the construction and grid connection of wind power plants is inhibited. Household-sized power plants up to 50 kVA can benefit from net metering. Renewable power project developers may apply for investment subsidies or soft loans through participation in tenders in the framework of EU co-financed subsidy and soft loan programmes. Some of these programmes – EEEOP and TOP for subsidies and EDIOP for soft loans – also cover renewable heating. The main support scheme for the use of renewable energy in the transportation sector is a biofuels quota system. Moreover, subsidy and reimbursement of excise duty options are available in certain biofuel cases.



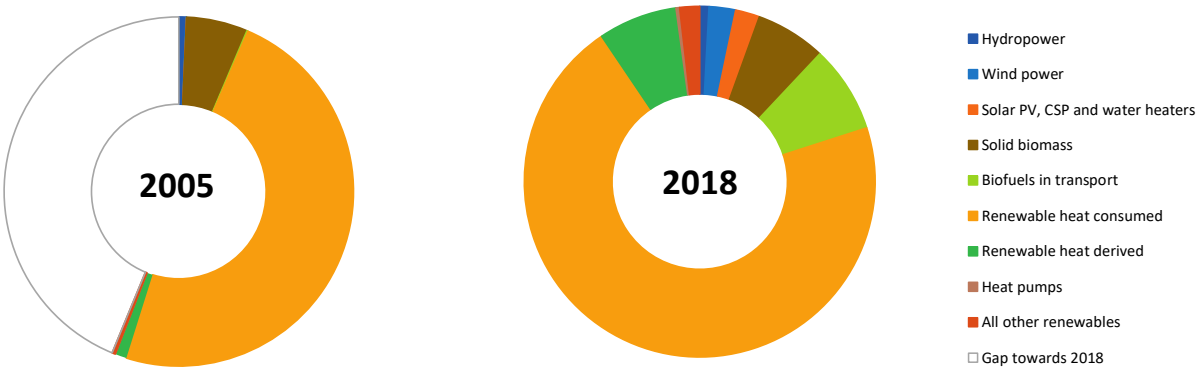
Source: EEA, Eurostat

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:	12.5%	Avoided fossil fuels:	3.5 [Mtoe]
Overall RES 2020 target:	13.0%	Avoided fuel expenses:	1.1 [billion euro]
Share RES-E in electricity:	8.3%	RES Turnover:	1630 [MEUR]
Share RES-T in transport:	7.7%	RES Employment:	38100 [jobs]
Share RES-H/C in heating:	18.1%		



Source: Eurostat, 2020.

	2005	2018		
	Energy	Energy	Employment	Turnover
Hydropower	15.9 ktoe	20.2 ktoe	100 Jobs	10 MEUR
Wind power	1.1 ktoe	58.5 ktoe	900 Jobs	60 MEUR
Solar PV, CSP and water heaters	0.0 ktoe	53.3 ktoe	4700 Jobs	220 MEUR
Solid biomass	135.3 ktoe	154.7 ktoe	11800 Jobs	400 MEUR
Biofuels in transport	2.6 ktoe	192.0 ktoe	18000 Jobs	810 MEUR
Renewable heat consumed	1154.9 ktoe	1683.7 ktoe		
Renewable heat derived	25.7 ktoe	173.9 ktoe		
Heat pumps	0.0 ktoe	7.9 ktoe	800 Jobs	40 MEUR
All other renewables	7.2 ktoe	43.7 ktoe	1800 Jobs	90 MEUR
Gap towards 2018	1045.0 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

Electricity from renewable energy sources is supported by the Renewable Energy Aid Scheme (REAS) which entered into force as from 1 January 2017. It encompasses three installation-size related components:

- feed-in tariffs for installations with a capacity of 50 kW-500 kW or in case of a demonstration project; both already operating with FiT support before 1 January 2017. The eligibility period and the maximum amount of eligible electricity are determined for each eligible electricity producer by the Hungarian Energy and Public Utility Regulatory Authority (HEA). For installations having applied for the feed-in tariff after 31 December 2016, the new Decree No. 299/2017. (X. 17.) applies. This decree sets out different regulations for renewable energy installations between 50 kW – 0.5 MW and for plants between 0.5-1 MW. Installations up to 0.5 MW are either eligible for the feed-in tariff or the green premium (market premium). All renewable power technologies that are not commercially feasible, except wind power, are eligible feed-in premiums without tendering for installations with a capacity of 0.5-1 MW and biomass/biogas installations in general. The rate depends on factors such as technology, capacity, grid area, time block (3 blocks per day). Support contract period is partly technology-specific and determined on an individual basis for remaining cases.

- Plants with a capacity >1 MW and generally all wind power plants are obliged to participate in a tendering procedure in order to receive the green premium. However, the construction and grid connection of wind power plants is currently inhibited by a Government Decree until at least 2019.

- net-metering for household-size power plants up to 50 kW.

- loan/subsidy programmes. These are granted on the basis of tenders, mainly within the framework of the Economic and Investment Operational Programme (EDIOP) for soft loans and the 'Széchenyi Plan 2020', the Environment and Energy Efficiency Operational Programme (EEEOP) , Territorial and Settlement Operational Programme {TOP), Competitive Central Hungary Operational Programme (CCHOP) and Rural Development Operational Programme (RDOP) for investment subsidies. These programmes are largely co-financed by the EU through the European Structural and Investment Funds (ESI) with a total allocation for Hungary (also including many other activities) over the period 2014-2020 of € 25 billion with counter financing by the State of Hungary to the tune of € 4.63 billion. In certain cases, feed-in tariffs can be combined with the soft loans or investment grants. Hitherto the tenders proceed in a rather low frequency; especially wind power projects face permitting problems.

The use of heating energy from renewable sources is also stimulated by the EEEOP and TOP subsidy schemes as well as by soft loans from the Economic Development Innovation Operative Programme (EDIOP), largely co-financed by the EU through ESI with counter-financing by the State of Hungary. Subsidies/ soft loans are granted on the basis of tenders. Technologies covered are determined by the tender specifications.

The use of renewable energy in the transportation sector is fostered by way of a biofuels quota scheme. Each year gasoline and diesel retailers have to meet pre-set annual quota for biofuels and hydrogen in their total sales on an energy content (MJ) basis. Producers of biofuels can also apply for certain investment subsidy schemes, including the TOP and CCHOP schemes, through participation in tenders. In certain cases reimbursement can be obtained of excise duty on transportation fuels.

Electric vehicles are exempted from registration tax and annual circulation tax. Company-owned electric vehicles are exempted from company car tax and eligible to free parking benefits.

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 Hungary – 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 Hungary'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 (%)	12.5	13.0	20.0	Below 23% (result of RES formula)
Final energy consumption (Mtoe)	18.5	14.4	18.6	Very low

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

Based on the formula contained in Annex II of the Governance Regulation, Hungary's renewables share would have to reach the level of 23% in 2030 (European Commission, 2019) against the historical rate of 12.5% in 2018 (eurostat, 2020a). The European Commission (2019) considers the proposed RES share by 2030 of **20%** not to fully reflect Hungary's potential and to be below the share of 23 % in 2030 that results from the formula in Annex II of the Regulation. The Commission deems the ambition level of the proposed **18.6 Mtoe** as contribution to the EU 2030 target for final energy consumption to be very low and not exploiting opportunities for growth and job creation.

Hungary's final National Energy and Climate Plan raises the target for the renewables share by year 2030 to 21% compared to 20% proposed in its draft NECP, still falling 2% short of the rate resulting from the formula in Annex II of the Governance Regulation. To achieve this target, existing and additional policies Hungary sets out to implement include (Government of Hungary, 2019):

- The increase of PV capacities is at the core of 'greening' the electricity sector, which will increase from just under 680 MW in 2016 to ~6 500 MW by 2030. In 2030 wind power station capacities will approximate the current level (~330 MW). In addition to maintaining existing hydroelectric power plants, the increase of small-scale hydroelectric power plant capacities is justified… The new Hungarian aid scheme for incentivising electricity generated from renewable energy sources was launched in January 2017. The first Renewable Energy Aid Scheme (REAS) tender was launched on 2 September 2019. To ensure cost-effective levels of aid, in the future aid within the REAS framework will only be available through technology-neutral renewable capacity tenders; production aid will be available within the conventional feed-in system only for experimental technologies and model projects…
- Implementation of the Green District Heating Programme plays a key role in the replacement of natural gas, the increase of using renewable energy sources on the heat market, and the supply of as many individually heated buildings as possible with renewable energy sources…

[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.

- Hungary will increase the share of first generation biofuels produced from food crops and fodder plants to roughly 7 %, and the share of second generation (or advanced) biofuels produced from waste and biogas to 3.5 % in the final energy consumption of the transport sector.[2]

As for Hungary's contribution to the EU energy efficiency target for year 2030, in its final NECP Hungary sets a target for its maximum gross final energy consumption to the tune of 785 PJ, corresponding to **18,75 Mtoe**. This even slightly higher than the 18.6 Mtoe[3] level proposed in Hungary's draft NECP, the ambition level of which the European Commission qualifies as very low.

[2] The shares should be interpreted in consideration of the multipliers used in the Renewable Energy Directive.
[3] As derived by the European Commission from the proposed Hungarian primary energy consumption of 1 009 PJ, corresponding to 26.41 Mtoe, in its draft NECP.

OVERVIEW OF MAIN SUPPORTING POLICIES

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

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

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

1) Except for wind power, installations commissioned before 2017 with a capacity of 50 kW-500 kW or in case of a demonstration project are eligible. As from 2017, new installations < 500 kW are either eligible for a feed-in tariff or a feed-in premium without tendering; new installations of 0.5-1 MW capacity (no capacity limit for biomass/biogas installations) are eligible for a feed-in premium without tendering.
2) Project developers of installations above 1 MW capacity and wind power installations in general are solely eligible for a feed-in premium through successful participation in tenders. Currently, development of wind farms are inhibited by permitting problems
3) Installations ≤ 50 kW benefitting households.

Sources: RES-Legal Europe, EurObserv'ER

Table 3: Brief description of key policy instruments aimed at promoting RES in Hungary

Instrument	*Description*
Feed-in tariff	For installations between 50 kW-500 kW which are not subject to tendering procedures. The transmission system operator (TSO) MAVIR Ltd. is legally obliged to purchase electricity from renewable sources, to sell it at the electricity stock market and pay a guaranteed price to plant operators.
Green premium without tendering	Is granted for renewable electricity producing plants between 0.5 MW-1 MW. Those plants are not subject to tendering procedures. The tariff is set out by a Government Decree which is determined through a market reference price and an 'administrative premium'.
Green premium with tendering	Plants with a capacity higher than 1 MW and wind power plants applying for a green premium are subject to obligatory tendering procedures.
Net metering	Household-sized power plants with a capacity of maximum 50 kVA may benefit from net metering. The electricity surplus injected to the grid is remunerated by the electricity supplier with the electricity retail price.
Subsidy programmes promoting renewable heat	Currently provided by subsidy programmes under the Environmental and Energy Efficiency Operative Programme (EEEOP) and other operative programmes financed through European Union funds in conjunction with funds provided by the Hungarian government.
Soft loans	Are granted within the Economic Development Innovation Operative Programme (EDIOP) to support the use of renewable energy sources for generating power and heat.
Biofuels quota scheme	Obliges fuel retailers to ensure that biofuels and hydrogen make up a certain percentage of their annual fuel sales.
Tax regulation mechanism	A tax reimbursement applies to certain biofuels in case of engine development projects and vehicles used in the mining industry and in water management.
Investment subsidies	Provided by certain programmes to promote renewable energy sources in the transport sector

For further information:

CEER, 2017. Status Review of Renewable Support Schemes in Europe. http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Electricity/2017/C16-SDE-56-03%20Status%20Review%20RES%20Support%20Schemes.pdf

European Alternative Fuels Observatory, https://www.eafo.eu/countries/hungary/1736/incentives

EurObservER Annual Overview 2016, https://www.eurobserv-er.org/category/all-annual-overview-barometers

European Commission, 2019. Assessment of the draft National Energy and Climate Plan of Hungary. SWD(2019) 267. Brussels, 18 June https://ec.europa.eu/energy/sites/ener/files/documents/hu_swd_en.pdf

EEA, 2019. Progress towards renewable energy source targets at member State and EU-28 levels. Copenhagen, 19 December https://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-9#tab-chart_3

European Union, 2018. Regulation (EU) 2018/1999 on the Governance of the European Union and Climate Action, OJEU L328/1, Brussels, 21 December European Commission, 2019. Assessment of the draft National Energy and Climate Plan of Croatia. SWD(2019) 224. Brussels, 18 June https://ec.europa.eu/energy/sites/ener/files/documents/hr_swd_en.pdf

Eurostat, 2020a. Renewable energy statistics; Share of renewable energy almost doubled between 2004 and 2018. Luxembourg, January https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics

Eurostat, 2020b. Energy consumption in 2018. Primary and final energy consumption still 5% and 3% away from 2020 targets. Luxembourg, 4 February

https://ec.europa.eu/eurostat/documents/2995521/10341545/8-04022020-BP-EN.pdf/39dcc365-bdaa-e6f6-046d-1b4d241392ad

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

Government of Hungary, 2019. National Energy and Climate Plan. Budapest, December https://ec.europa.eu/energy/sites/ener/files/hu_final_necp_main_en.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, 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/hungaria/

https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-hungary_en.pdf (European Commission/ DG ENER, Factsheet Hungaria, 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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