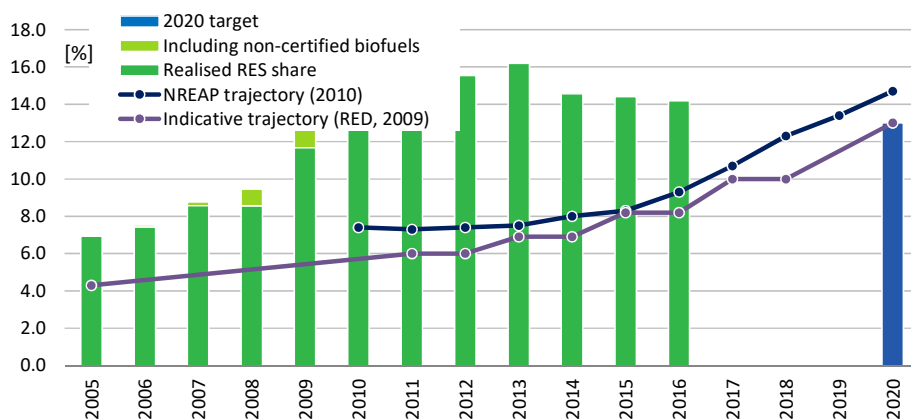


## Summary

In Hungary, electricity from renewable energy sources is supported by a feed-in-tariff or a market ('green') premium, depending on the capacity and energy source. Household-sized power plants up to 50 kVA can benefit from net metering. In general, subsidy programmes also promote the use of renewable energy sources in the electricity and heating sector. The main support scheme for the use of renewable energy in the transportation sector is a quota system supplemented by a reimbursement of excise duty.



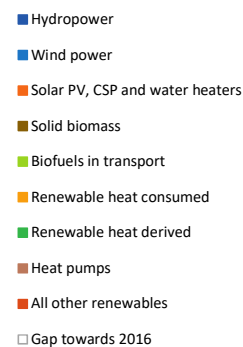
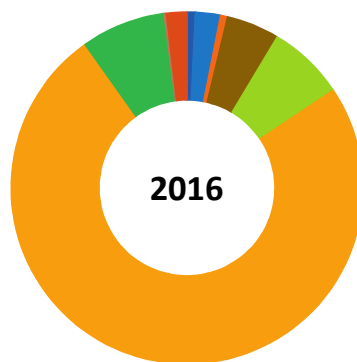
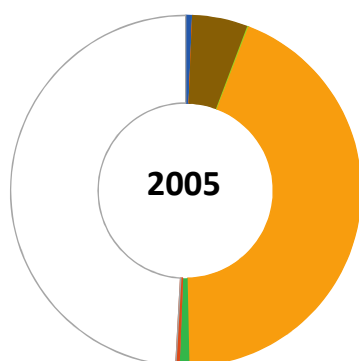
Source: EEA, Eurostat

## Abbreviations used:

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

## Data for 2016

|                             |       |                        |                    |
|-----------------------------|-------|------------------------|--------------------|
| Overall RES share:          | 14.2% | Avoided fossil fuels:  | 3.4 [Mtoe]         |
| Overall RES 2020 target:    | 13.0% | Avoided fuel expenses: | 1.0 [billion euro] |
| Share RES-E in electricity: | 7.2%  | RES Turnover:          | 1460 [MEUR]        |
| Share RES-T in transport:   | 7.4%  | RES Employment:        | 35200 [jobs]       |
| Share RES-H/C in heating:   | 20.8% |                        |                    |



Source: Eurostat, 2018.

|                                 | 2005        | 2016        |            |           |
|---------------------------------|-------------|-------------|------------|-----------|
|                                 | Energy      | Energy      | Employment | Turnover  |
| Hydropower                      | 15.9 ktoe   | 20.0 ktoe   | < 100 Jobs | < 10 MEUR |
| Wind power                      | 1.1 ktoe    | 60.7 ktoe   | 800 Jobs   | 50 MEUR   |
| Solar PV, CSP and water heaters | 0.0 ktoe    | 17.2 ktoe   | 2400 Jobs  | 110 MEUR  |
| Solid biomass                   | 135.3 ktoe  | 128.4 ktoe  | 12000 Jobs | 350 MEUR  |
| Biofuels in transport           | 2.6 ktoe    | 185.9 ktoe  | 15700 Jobs | 750 MEUR  |
| Renewable heat consumed         | 1154.9 ktoe | 1966.7 ktoe |            |           |
| Renewable heat derived          | 25.7 ktoe   | 204.0 ktoe  |            |           |
| Heat pumps                      | 0.0 ktoe    | 5.3 ktoe    | 500 Jobs   | 20 MEUR   |
| All other renewables            | 7.2 ktoe    | 49.7 ktoe   |            |           |
| Gap towards 2016                | 1295.0 ktoe |             |            |           |

Source: Eurostat, EurObserv'ER, 2018.

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).



## ***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 market ('green') premium for installations with a capacity of 0.5-1 MW. 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. Household-sized power plants up to 50 kVA can benefit from net metering. In general, subsidy programmes also promote the use of renewable energy sources, also in the electricity and heating sector. The main support scheme for the use of renewable energy in the transportation sector is a biofuels quota system, subsidies and reimbursement of excise duty.

## ***CURRENT RENEWABLE ENERGY POLICY***

*Electricity from renewable energy sources* is supported by the METÁR scheme 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
- feed-in premiums for installations with a capacity of 0.5-1 MW and biomass/biogas installations in general
- net-metering for household-size power plants up to 50 kW.

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. Moreover, loan/subsidy programmes promote the use of renewable energy sources in the electricity. These are granted on the basis of tenders, mainly within the framework of 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). In certain cases, feed-in tariffs can be combined with the favourable loans or investment grants within the subsidy programmes. Hitherto the tenders proceed in a lackluster 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 subsidies from the Economic Development Innovation Operative Programme (EDIOP). Subsidies are granted on the basis of tenders.

*The use of renewable energy in the transportation sector* is fostered by way of a biofuels quota. Producers of biofuels can also apply for certain investment subsidy schemes, including the TOP scheme. System. In certain cases reimbursement can be obtained of excise duty on E85, bioethanol, biodiesel. 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.

## **OVERVIEW OF MAIN SUPPORTING POLICIES**

The main support scheme for the promotion of renewable energy sources in the transport sector is a *quota system*. This support scheme obliges fuel retailers to ensure that biofuels and hydrogen make up a certain percentage of their yearly sales.

Furthermore, certain *subsidy programmes* which allocate funds from the European Union as well as state funds also targeting the greening of the transport sector, inter alia the Territory and Settlement Development Programme (TOP) and the Competitive Central Hungary Operational Programme (CCHOP).

The share of electric and hybrid-electric cars in total sales on the Hungarian market is at around 0.25% of total cars sales in 2015 (i.e. 70 petrol-electric cars and 121 electric cars). Over the last four years the number of electric charging points in Hungary has increased steadily, from 63 units in 2013 to 205 units in 2016. National Policy Frameworks under Directive 2014/94/EU on alternative fuels infrastructure have to establish targets, objective and measures for the development of the market of alternative fuels in the transport sector and the deployment of the relevant infrastructure. Hungary has submitted its National Policy Framework as requested under article 3 of the Directive 2014/94/EU.

**Table 1:** Overview of support schemes to promote renewable energy in Hungary

| REGULATORY POLICIES   |                                  |                          |   |  |                           | FISCAL INCENTIVE AND PUBLIC FINANCES |                          |                          |                          |
|---|----------------------------------|--------------------------|---|--|---------------------------|--------------------------------------|--------------------------|--------------------------|--------------------------|
|   | Feed-in tariff / Feed-in premium | Tendering                | Quota obligation with Tradable Green certificates | Quota obligation without Tradable Green certificates | Net-metering/ net-billing | Capital subsidy, grants              | Tax regulation mechanism |                          | Soft Loans               |
| RES-E   |                                  |                          |   |  |                           |                                      |                          |                          |                          |
| - Offshore wind   | x                                | x                        | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Onshore wind  | x                                | x                        | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Solar   | x                                | x                        | <input type="checkbox"/>                          | <input type="checkbox"/>                             | x                         | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Hydro   | x                                | x                        | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Geothermal  | x                                | x                        | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Solid biomass   | x                                | x                        | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Biogas  | x                                | x                        | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| RES-H/C   |                                  |                          |   |  |                           |                                      |                          |                          |                          |
| - Solar thermal   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | x                        |
| - Geothermal  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | x                        |
| - Biomass   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | x                        |
| - Biogas  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | x                        |
| - Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | x                        |
| - Others, i.e. aerothermal, hydrothermal  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>                             | <input type="checkbox"/>  | x                                    | <input type="checkbox"/> | <input type="checkbox"/> | x                        |
| RES-T   |                                  |                          |   |  |                           |                                      |                          |                          |                          |
| - Bio gasoline  | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | x  | <input type="checkbox"/>  | x                                    | x                        | <input type="checkbox"/> | x                        |
| - Biodiesel   | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/>                          | x  | <input type="checkbox"/>  | x                                    | x                        | <input type="checkbox"/> | x                        |

Sources: EurObserv'ER, GSR/REN21, RES-Legal Europe (2017)

**Table 2:** Brief description of key policy instruments aimed at promoting RES in Hungary

| <i>Instrument</i>                           | <i>Description</i>   |
|---|--|
| 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 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 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   |

Support for the use of renewable energy sources for generating heat is currently provided by *subsidy programmes* under the Environmental and Energy Efficiency Operative Programme (EEEOP) ('Környezet és Energiahatékonysági Operatív Program' – KEHOP) and other operative programmes financed through European Union funds in conjunction with funds provided by the Hungarian government. Furthermore, favourable loans are granted within the Economic Development Innovation Operative Programme (EDIOP) ('Gazdaságfejlesztési és Innovációs Operatív Program' - GINOP).

There are *vocational trainings* with some and limited relevance for RES-installations. Furthermore, there is a *recommendation* in place for *considering the use of renewable energy sources in new buildings*. This recommendation will turn into an obligation for all buildings ready to move in after 31 December 2020 according to standards set by the Government. There is a *programme* in place on the *exemplary role of central government agencies* and applies to projects which aim at increasing the energy efficiency of public buildings and which foster the use of renewable energy sources. *Policies on certification programmes for RES installation and on the support of RES-H infrastructure* are mainly provided in the Environment and Energy Efficiency Operational Programme and the Economic Development and Innovation Operational Programme.

### ***For further information:***

EEA 2017: Progress of renewable energy sources, European Environmental Agency (EEA), <https://www.eea.europa.eu/data-and-maps> (European Union), last accessed June 2017.

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

Eurostat, 2017. Energy from renewable sources. [http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy\\_from\\_renewable\\_sources](http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_from_renewable_sources)

Global Status Report by REN21

[http://www.ren21.net/wp-content/uploads/2016/10/REN21\\_GSR2016\\_FullReport\\_en\\_11.pdf](http://www.ren21.net/wp-content/uploads/2016/10/REN21_GSR2016_FullReport_en_11.pdf)

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

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

European Alternative Fuels Observatory, <http://www.eafo.eu/content/hungary> ;  
<http://www.eafo.eu/eu>

## ***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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