

Renewable Energy Policy Factsheet

Summary

Operators of renewable electricity plants are exempt from real estate tax. For operators of a renewable electricity plant, commissioned before 2014, the technology-specific main support instrument is either a feed-in tariff or a feed-in premium. Operators of (also new) small hydro power plants are eligible to subsidies under the Operational Programme "Entrepreneurship and Innovation for Competitiveness". Renewable heat is supported through subsidies under two Operational Programmes funded by the European Regional Development Fund (ERDF). Also renewable heat plants are exempt from real estate tax. Moreover, a building obligation is in place for new buildings to meet the criterion of near-zero-energy buildings. Biofuels are supported by a biofuels quota scheme and a consumption tax exemption.





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:** Overall RES 2020 target: Share RES-E in electricity: Share RES-T in transport: Share RES-H/C in heating:

15.1% 13.0% 13.7% 6.5% 20.6%

Avoided fossil fuels: Avoided fuel expenses: RES Turnover: 5.8 [Mtoe] 1.4 [billion euro]





RES Employment:

2530 [MEUR] 39100 [jobs]

Hydropower Wind power Solar PV, CSP and water heaters Solid biomass Biofuels in transport

Renewable heat consumed

Renewable heat derived Heat pumps

All other renewables

□ Gap towards 2018

Source: Eurostat, 2020.

	2005		2018	
	Energy	Energy	Employment	Turnover
Hydropower	161.0 ktoe	192.3 ktoe	1300 Jobs	90 MEUR
Wind power	1.4 ktoe	51.3 ktoe	1300 Jobs	100 MEUR
Solar PV, CSP and water heaters	0.0 ktoe	202.8 ktoe	2100 Jobs	150 MEUR
Solid biomass	48.2 ktoe	182.4 ktoe	16700 Jobs	1120 MEUR
Biofuels in transport	0.0 ktoe	308.7 ktoe	8000 Jobs	430 MEUR
Renewable heat consumed	1636.9 ktoe	2519.9 ktoe		
Renewable heat derived	90.2 ktoe	219.6 ktoe		
Heat pumps	13.3 ktoe	172.8 ktoe	5300 Jobs	370 MEUR
All other renewables	14.7 ktoe	232.8 ktoe	4400 Jobs	270 MEUR
Gap towards 2018	2116.8 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 sources produced by installations commissioned before 2014 is promoted mainly through either a guaranteed feed-in tariff or alternatively a feed-in premium paid on top of the market price. In principle, plant operators can choose either option. However, a feed-in tariff can only be granted to operators of RES plants with an installed capacity up to 100 kW (30 kW in case of rooftop or façade PV installations or 10 MW in case of hydro power). PV and biogas plants are only eligible if put into operation before 31 December 2013. Wind, hydro, geothermal or biomass plants up to 100 kW are eligible only if they were put into operation before 31 December 2015 and the building permit was issued before 2 October 2013. In principle, all renewable electricity producers (including prosumers) can opt for a feed-in premium. However, only PV and biogas plants commissioned before 31 December 2013 are only eligible for a feed-in premium. Wind, hydro, geothermal or biomass plants are eligible only if the building permit was issued before 2 October 2013 and commissioned before 31 December 2015. The feed-in premium is paid on top of the (average) market price, calculated either on an annual basis (installations ≤100 MW) or hourly basis (installations > 100MW). Operators of hydro as well as biogas and biomass fired, power plants up to 10 MW can apply for investment subsidies under the Operational Programme "Entrepreneurship and Innovation for Competitiveness 2014-2020" which is funded by the ERDF. Additionally, the Operational Programme "Environment 2014-2020" supports the installation of photovoltaic systems by the owners of public buildings. All renewable electricity plants based on wind energy, biogas, biomass and hydropower are exempt from real estate tax.

Installations producing renewable heat are supported through subsidies, funded by the ERDF. Besides, these installations are exempt from real estate tax.

Renewable transport fuels are promoted by way of 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 fuel sales volume. Besides, biofuels as well as the biofuels component of mixed transport fuels are exempt from a consumption tax. Electric vehicles are exempt from the vehicles purchase tax. Electric, hybrid and other alternative fuel vehicles are exempt from the road tax, a tax applying to cars used for business purposes only. BEVs, FCEVs and vehicles with alternative powertrains (electric or hydrogen) with CO2 emissions up to 50g/km have been exempt from motorway tolls since 1 January 2020.

So far, the assessment by the European Commission of *draft National Energy and Climate Plans* of the Member States is available. The assessment of the targets for year 2030 for the share of renewable energy and gross final energy consumption in the draft integrated National Energy and Climate Plan of Chechia are shown below.¹

¹ Other factors remaining the same, gross final energy consumption reduction (energy efficiency improvement) boosts the share for renewables *in gross final energy consumption*.

Table 1: Overview of Czech Republic'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 (%)	15.1	13.0	20.8	Below 23% (result of RES formula)
Final energy consumption (Mtoe)	25.3	25.3	23.7	Modest

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

Based on the formula contained in Annex II of the Governance Regulation, Czech Republic's renewables share would have to reach the level of **23%** in 2030 (European Commission, 2019) against the historical rate of 15.1% in 2018. Hence, the European Commission (2019) assessed that the draft NECP fell short in ambition level regarding the **20.8%** target for year 2030, notably regarding renewable heating and cooling. The Commission recommended to design and implement additional measures enabling to reach a share of 23% by 2030. The gross final energy consumption in 2030, targeted at **23.7 Mtoe**, against 25.3 Mtoe in 2018 was qualified by the European Commission to show a modest ambition level.

The final National Energy and Climate Plan of the Czech Republic, partially revised targets for year 2030 in the draft NECP with specification of policies and measures towards these targets. Cyprus has raised its year 2030 target for the share of renewables in gross final energy consumption level to 22 %, i.e. a shortfall of 1% against 2.2% in the draft NECP, when compared to the 23% share, resulting from the application of the formula contained in Annex II of the Governance Regulation.

The main policies for achieving the proposed 22% renewable energy share by 2030 include those enshrined in the draft amendment to Act No 165/2012, on supported energy sources, which sets out a new support scheme for renewable or supported energy sources after 2020, as well as a continuation of existing policies. Medio 2020 the draft amendment to Act No 165/2012 had not yet passed through the entire legislative process. It proposes, for application during 2021-2030, the preparation of tools and measures with appropriate forms of support for all supported energy sources, new and existing renewable energy installations. This includes:

a) modification of the current form of support for small sources up to 1 MW, where the support will no longer be used in the form of feed-in tariffs, but only in the form of an hourly green bonus. This is the most 'pro-market' approach and financially most effective form of support for small sources.

b) introduction of support through competitive tenders (auctions) for sources above 1 MW. This is a 'promarket' principle, which, moreover, also follows for these sources as an obligation from EU legislation.

c) introducing a new form of support so that some existing sources can be maintained in operation and some other new sources can develop, and introducing new forms of support to ensure the required sectoral RES targets in heating and cooling.

d) This involves the introduction of new forms of support in order to ensure the achievement of sectoral RES targets in transport required by the revised RES Directive, including the promotion of biomethane.

OVERVIEW OF MAIN SUPPORTING POLICIES

The main RES support measures applied in the Czech Republic are epitomized in Tables 2 and 3 below. Note that the measures in these tables are either applicable to either installations commissioned (broadly) before 2014 or to all installations (including new ones). See the previous section and the notes to Table 2 for more details. Table 2: Overview of support schemes to promote renewable energy in the Czech Republic

		NON-FISCAL SUPPORT SCHEMES			FISCAL AND OTHER STATE FUNDED INCENTIVES					
	Feed-in tariffs 1)	Feed-in premium 1)	Tenders	Quota obligation with Tradable Green certificates	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Investment subsidies 2)	Tax credits mechanism 1 3)	Tax credits mechanism II 4)	Soft loans
RES-E										
- Offshore wind										
- Onshore wind	х	х						х		
- Solar	х	x						х		
- Hydro	x	х					х	х		
- Geothermal	х	х								
- Solid biomass	х	х					х	х		
- Biogas	х	х					х	х		
RES-H/C										
- Solar thermal							х	х		
- Geothermal							х	х		
- Biomass							х	х		
- Biogas							х	х		
 Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves 							x	x		
 Others, i.e. aerothermal, hydrothermal 							х	x		
RES-T										
- Bio gasoline					х				х	
- Biodiesel					х				х	

1) Operators of eligible plants have to choose for FiT or FiP support. Eligibility depends, among other requirements, on meeting technology-specific maximum capacity levels. Since 1 January 2014 only pre-existing (other) eligible RES-E installations can benefit from FiT or FiP support.

2) Funded by the ERDF.

3) RES-E (except for geothermal) and RES-H installations are exempt from real estate tax

4) Biofuels are exempt from a consumption tax

Sources: RES-Legal Europe (2019), EurObserv'ER

Table 3: Overview of instruments used at present to stimulate the uptake of renewable energy in the Czech Republic

Instrument	Description
Feed-in tariffs or	Guaranteed sale of electricity at a pre-set preferential price or a premium on top of the
premiums	revenues from electricity sold, during the support contract period. For RES-E
	installations not larger than a technology-specific generating capacity. Only installations
	commissioned before January 2014 fall under this scheme. The exception is formed by
	eligible hydropower installations: also new ones can benefit for the FIT/FiP scheme.For
	eligible hydropower installations. Apart from small-scale projects, new projects do not
	get feed-in support.
Investment subsidies	Certain hydropower installations as well as RES-H installations can benefit from
	subsidies, financed by the ERDF
Tax credits schemes	Renewable heating & cooling installations in buildings are eligible for an exemption
	from property tax for building owners. Biofuels are exempt from a consumption tax.
Biofuels quota scheme	Importers/suppliers of transport fuels are subject to a renewable quota scheme for
	biofuels. Compliance based on sample testing rather than certificates-based. No (direct)
	incentives for other alternative transport fuels.

For further information:

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

European Alternative Fuels Observatory, https://www.eafo.eu/countries/czech-republic/1729/incentives

European Commission, 2019. Assessment of the draft integrated National Energy and Climate Plan of Czechia. SWD(2019) 214. Brussels, 18 June https://ec.europa.eu/energy/sites/ener/files/documents/cz swd en.pdf

EEA, 2019. Progress towards renewable energy source targets at member State and EU-28 levels. Copenhagen, 19 December <u>https://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-9#tab-chart 3</u>

European Union, 2018. Regulation (EU) 2018/1999 on the Governance of the European Union and Climate Action, OJEU L328/1, Brussels, 21 December

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R1999&from=EN

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-bdaae6f6-046d-1b4d241392ad

Government of the Czech Republic, 2019. Cyprus' Integrated Energy and Climate Plan. Nicosia, January <u>https://ec.europa.eu/energy/sites/ener/files/documents/cz_final_necp_main_en.pdf</u>

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

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

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, <u>http://www.res-legal.eu/search-by-country/czech republic/</u>

https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-czech republic en.pdf (European Commission/ DG ENER, Energy Union Factsheet Czech Republic, 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.



Disclaimer

This document was prepared by the EurObserv'ER consortium, which groups together Observ'ER (FR), the TNO Energy Transition (NL), the Renewables Academy (RENAC, DE), Frankfurt School of Finance and Management (DE), Fraunhofer-ISI (DE) and Statistics Netherlands (CBS, NL). The information and views set out in this publication are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.