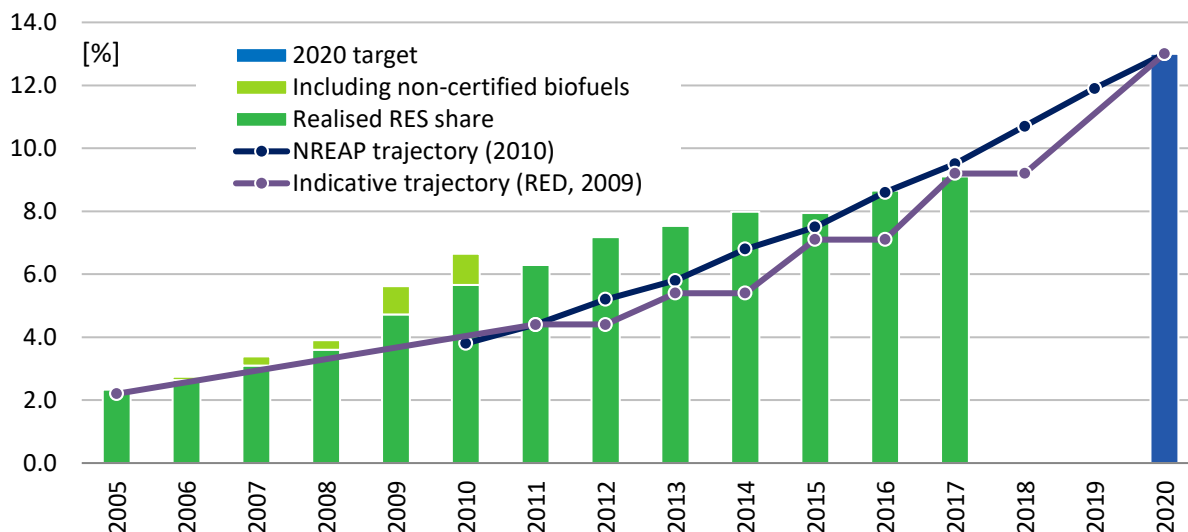


Summary

Belgium consists of three regions: Brussels, Flanders and Wallonia, each with much autonomy in determining renewable support policies. Yet the federal government is mandated to arrange support to offshore wind and hydro power as well as renewable heating (partly) and renewable fuels. Electricity from renewable sources is promoted at regional and federal levels mainly through a certificates-endorsed renewable quota scheme, complemented by regional support measures. In the three regions small PV installations benefit from net metering. The federal government supports renewable heating and cooling by way of a tax deduction on investment costs. The main support scheme for renewable energy sources used in transport is a biofuels quota scheme under the competence of the federal government.



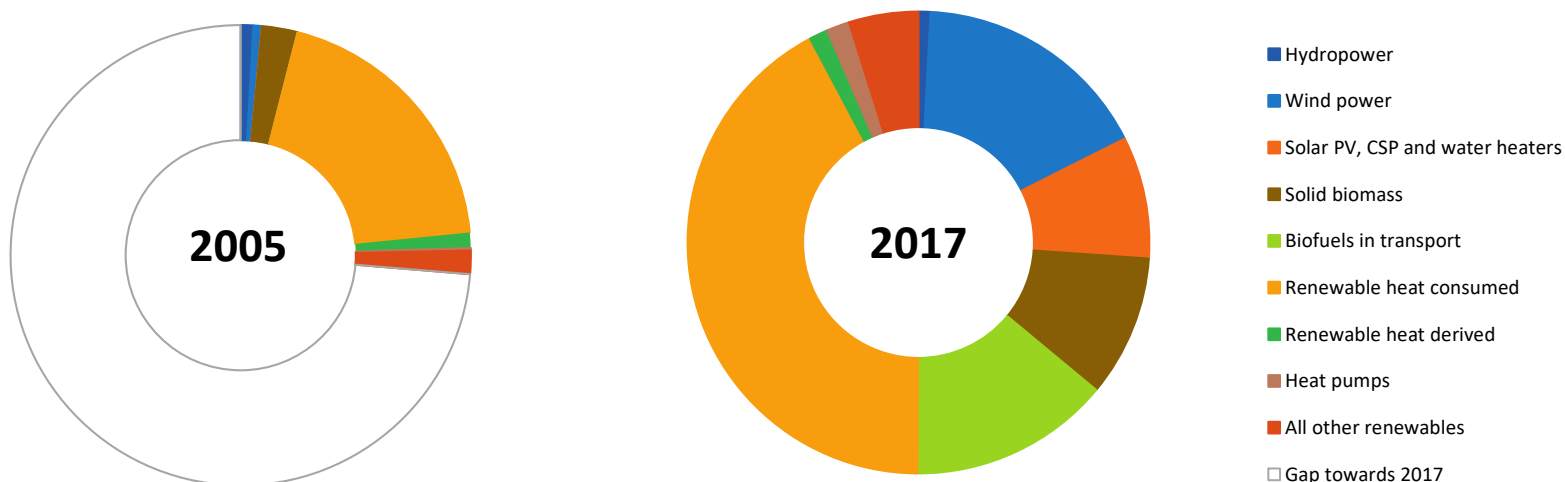
Source: EEA, Eurostat

Abbreviations used:

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

Data for 2017

Overall RES share:	9.1%	Avoided fossil fuels:	5.1 [Mtoe]
Overall RES 2020 target:	13.0%	Avoided fuel expenses:	1.5 [billion euro]
Share RES-E in electricity:	17.2%	RES Turnover:	3820 [MEUR]
Share RES-T in transport:	6.6%	RES Employment:	17800 [jobs]
Share RES-H/C in heating:	8.0%		



Source: Eurostat, 2019.

	2005		2017		
	Energy		Energy	Employment	Turnover
Hydropower	29.1 ktOE		27.6 ktOE	400 Jobs	80 MEUR
Wind power	20.1 ktOE		554.3 ktOE	5500 Jobs	1100 MEUR
Solar PV, CSP and water heaters	0.1 ktOE		282.7 ktOE	3100 Jobs	600 MEUR
Solid biomass	82.5 ktOE		328.2 ktOE	2000 Jobs	590 MEUR
Biofuels in transport	0.0 ktOE		465.1 ktOE	1500 Jobs	420 MEUR
Renewable heat consumed	643.7 ktOE		1395.6 ktOE		
Renewable heat derived	35.5 ktOE		43.7 ktOE		
Heat pumps	5.9 ktOE		52.9 ktOE	1400 Jobs	270 MEUR
All other renewables	54.2 ktOE		161.0 ktOE		
Gap towards 2017	2439.8 ktOE				

Source: Eurostat, EurObserv'ER, 2019.

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

In each of the three regions, *electricity from renewable sources* is promoted mainly through a renewable quota scheme based on the trade of certificates. As for these schemes, national TSO Elia has the obligation - when renewable electricity generators wish so - to purchase green certificates at a minimum price set by law for certain renewable electricity generation technologies (offshore wind and hydropower). The regional renewable quota schemes are based on a framework set by the federal government including guaranteed price floors for certain technologies, but may have region-specific features including the level of quotas set. Region-specific complementary support measures include:

- Flanders: a renewable quota scheme stipulating different technology-specific quantities of renewable electricity per certificate (technology banding); an ecological (investment) premium for certain technologies included in the “limited technology list (LTL” in lieu of the Flemish renewable quota scheme, a “strategic” (investment) premium on a successful application basis for technologies not on the LTL , net metering for small technologies ≤ 10 kW))
- Wallonia: a renewable quota scheme stipulating different technology-specific quantities of renewable electricity per certificate (technology banding allowing for several factors) and technology-specific maximum eligibility periods (10 or 15 years) investment support to certain technologies (wind power, biogas, hydropower, biomass, geothermal) with technology-specific restrictions and region-specific support levels, net metering for small technologies (≤ 10 kW)
- Brussels: a renewable quota scheme stipulating different technology-specific quantities of renewable electricity per certificate (allowing for technology/size-specific factors), investment support for certain PV, biogas- and biomass-based CHP installations to companies in almost all sectors, net metering for small technologies (≤ 5 kW), RES obligations in new public buildings, an overall RES volume target and a RES share target for 2020.

As for *renewable heating and cooling*, the federal government provides support to companies investing in technologies producing renewable heat and/or cooling by way of a tax deduction measure and indirect measures such as applicable RD&D programmes. Region-specific complementary support measures include:

- Flanders: a renewable heating quota scheme; obligation to conduct energy auditing and use renewable heat in schools and public office buildings; R&D by the Environment and Energy Innovation Platform MIP), Energy Regulation transposing the buildings obligations for heat from renewable energy into Flemish law, Strategy on Heating and Cooling introducing area-based RES-H policies, training programmes for installers of heat pumps and PV installations
- Wallonia: RD&D investment support, building renovations to comply with energy performance of buildings (PEB) regulation including RES-H requirements, a zero-percent interest loans programme for RES-H implementation, investment subsidies biogas and biomass CHP installations, biomass heating plants, aerothermal, geothermal as well as solar thermal installations, training programmes for RES-E and RES-H installers
- Brussels: support measures specified in the Air and Climate Energy Plan (PACE) including energy efficiency subsidies for all buildings partly based on calls for projects and for renovation of public buildings, Walloon and Flemish training programmes for installers of solar water heaters, heat pumps and PV installations covering Brussels as well. The National Renewable Energy Action Plan foresees a share of 30% of renewable energy for new public buildings in the Brussels-Capital region by 2025.

Promotion of *the use of renewables in transportation* is the competence of the federal government. The main instrument is a biofuels quota (blending) scheme. The law governing the renewable transport quota scheme obliges companies that sell gasoline E5 or E10 or bio-diesel to satisfy a defined volume of sustainable biofuels within the calendar year concerned. The defined volume relates to the total energy volume of transport fuels sold by the obligatory companies. Furthermore, two fiscal stimulation measures are in place:

- A reduction of the excise tax on automotive fuels, contingent on the share of biofuels in automotive fuels
- A full exemption on the excise taxes for automotive fuels, applicable to rapeseed oil directly sold by manufacturers thereof to the final consumers.

In Flanders the purchase of a battery and fuel cell electric vehicle is incentivized by way of a subsidy amounting to €4000; to be reduced per price bracket for vehicles \geq €31,000. Electric vehicles and plug-in hybrid vehicles are exempt from registration tax in Flanders and minimum registration tax in Wallonia/Brussels. Electric vehicles exempt from ownership tax in Flanders and pay much less than other vehicles in Wallonia/ Brussels: €74,35 /year against €1900/year. The deductibility from corporate income of expenses related to the use of company cars is 120% for zero emissions vehicles until 2019 and 100% from 2020 onward. Income tax credit to the tune of 75% of electricity charging cost.

OVERVIEW OF MAIN SUPPORTING POLICIES

The main RES support measures, applied by the Belgium federal government and/or in (at least one of) the three regional administrations, are epitomized in Tables 1 and 2 below.

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

	REGULATORY POLICIES						FISCAL AND OTHER STATE FUNDED INCENTIVES		
	Feed-in tariffs	Feed-in premiums 1)	Tenders	Quota obligation with Tradable Green certificates	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Investment subsidies	Tax credits mechanisms	Soft loans
RES-E									
- Offshore wind		x	x	X					
- Onshore wind				X			x		
- Solar PV		x		X		x	x		
- Hydro				X			x		
- Geothermal				X			x		
- Solid biomass				X			x		
- Biogas				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	
- Biodiesel					x			X	

1) Formally no feed-in tariffs and premiums whatsoever are in place in Belgium. But the public service obligations imposed on TSO Elia and DSOs to grant technology-specific minimum payments to operators of renewable electricity generation installations if the latter desire so, boil down to feed-in premiums in the case on offshore wind and certain medium and large scale PV installations.

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

Table 2: Overview of instruments used at present in Belgium

Instrument	Description
Feed-in premiums	Guaranteed premium during the support contract period on top of revenues from electricity sales: the guaranteed minimum certificate price granted by Elia works out as a feed-in premium for offshore wind and medium and large PV projects.
Tendering	Applied in offshore wind sub-sector
Renewable quota scheme, certificates-based	Obligation upon electricity suppliers to surrender on the settlement day of the current year a number of certificates corresponding to a pre-set minimum share of their annual sales volume last year.
Net metering	Possibility for an operator of a small roof-top PV installations to settle electricity fed into the grid in the course of a calendar year at the retail electricity tariff (including taxes and surcharges) up to a maximum level, i.e. the aggregated volume of electricity absorbed by the operator concerned from the grid during the same calendar year.
Tax credits scheme	Renewable heating & cooling installations in buildings are eligible for an exemption from property tax for building owners.
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.

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

EEA, 2017 <http://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-2>

Eurostat, 2017. Energy from renewable sources. http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_from_renewable_sources

REN21, Global Status Report 2017 http://www.ren21.net/wp-content/uploads/2017/06/170607_GSR_2017_Full_Report.pdf

IEA/IRENA Joint Policies and Measures database

<https://www.iea.org/policiesandmeasures/renewableenergy/?country=Belgium>

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/belgium/>

https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-belgium_en.pdf

(European Commission/ DG ENER, Energy Union Factsheet Belgium, November 2017)

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

<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 depression", 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 depression 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.



This project is funded
by the European Union under
contract n°ENER/C2/2016-487/SI2.742173

Disclaimer

This document was prepared by the EurObserv'ER consortium, which groups together Observ'ER (FR), the Energy research Centre of the Netherlands (ECN, 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