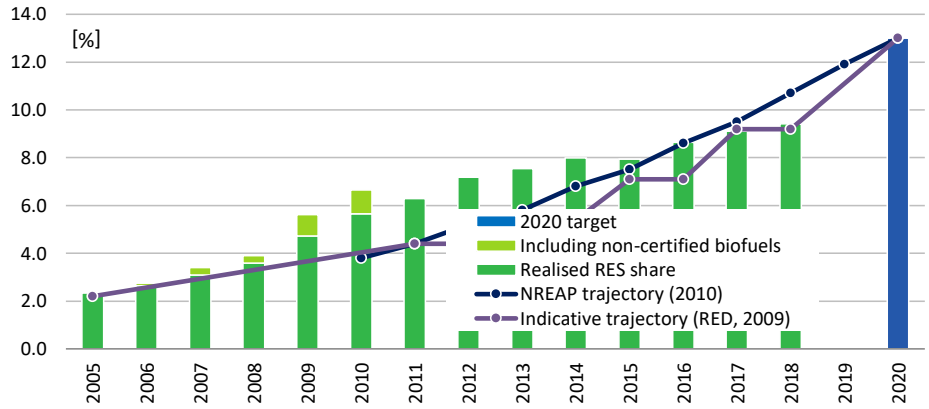
Belgium

Renewable Energy Policy Factsheet

October 2020

Summary

Belgium consists of three regions: Flanders, Wallonia and Brussels, 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.



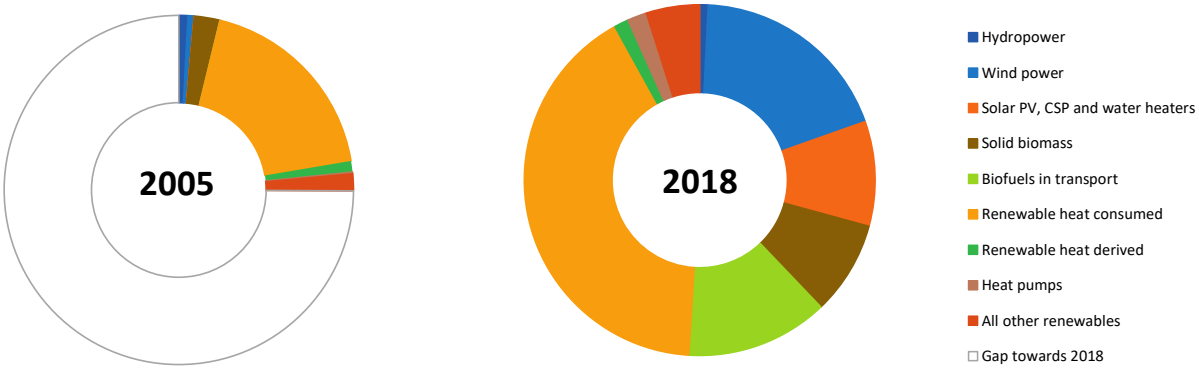
Source: EEA, Eurostat

Abbreviations used:

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

Data for 2018

Overall RES share:	9.4%	Avoided fossil fuels:	4.9 [Mtoe]
Overall RES 2020 target:	13.0%	Avoided fuel expenses:	1.6 [billion euro]
Share RES-E in electricity:	18.9%	RES Turnover:	3450 [MEUR]
Share RES-T in transport:	6.6%	RES Employment:	16200 [jobs]
Share RES-H/C in heating:	8.2%		



Source: Eurostat, 2020.

	2005	2018		
	Energy	Energy	Employment	Turnover
Hydropower	29.1 ktoe	26.8 ktoe	400 Jobs	70 MEUR
Wind power	20.1 ktoe	653.0 ktoe	7400 Jobs	1480 MEUR
Solar PV, CSP and water heaters	0.1 ktoe	335.5 ktoe	1800 Jobs	340 MEUR
Solid biomass	82.5 ktoe	299.6 ktoe	1500 Jobs	500 MEUR
Biofuels in transport	0.0 ktoe	455.8 ktoe	1100 Jobs	290 MEUR
Renewable heat consumed	643.7 ktoe	1422.3 ktoe		
Renewable heat derived	35.5 ktoe	45.9 ktoe		
Heat pumps	5.4 ktoe	61.9 ktoe	2900 Jobs	560 MEUR
All other renewables	54.2 ktoe	170.8 ktoe	1100 Jobs	210 MEUR
Gap towards 2018	2600.9 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

In each of the three regions, *electricity from renewable sources* is promoted mainly through a renewable quota scheme based on 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**.**

Electric 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: €83,56 /year against €1900/year. In Belgium the deductibility from corporate income of expenses related to the use of company cars is 100% for zero emissions vehicles. Moreover, in Belgium an Income tax credit is available to the tune of 75% of electricity charging cost.

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 National Energy and Climate Plan of Belgium are shown in Table 1 below.[1]

Table 1: Overview of Belgium'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 (%)	9.4	13.0	18.3	Below 25% (result of RES formula)
Final energy consumption (Mtoe)	25.2	26.7	26.2	Low

Note: First final energy consumption figure pertains to year 1997 (European Commission, 2019).
Source: European Commission, (2019); Eurostat (2020a)

Based on the formula contained in Annex II of the Governance Regulation, Belgium's renewables share would have to reach the level of 25% in 2030 (European Commission, 2019) against the historical rate of 9.4% in 2018. Hence, the European Commission (2019) assessed that the draft NECP fell significantly short in ambition level regarding the **18.3%** target for year 2030. The negligible reduction of gross final

[1] Other factors remaining the same, high gross final energy consumption reduction (energy efficiency improvement) accomplishment boosts the share for renewables in gross final energy consumption as well as high reduction of GHG emissions.

energy consumption in 2030, projected to almost stabilize at a level of **26.2 Mtoe**, renders it more difficult to achieve an ambitious renewable energy share.

On 18 December 2019 the national and regional governments approved the final National Energy and Climate Plan (NECP) of Belgium, enumerating targets for year 2030 and specifying policies and measures towards these targets at national level and for each of the three Belgium regions (Government of Belgium, 2019). As for the national targets, Belgium now aims at a gross final energy consumption level of **35,4 Mtoe**, 6,2 Mtoe i.e. **17.5%** of which to be contributed by Belgium renewable energy sources. For now, the Belgium government sees little scope to raise its ambitions regarding reducing the level of gross final energy consumption and increasing the share of renewable energy sources. The potential for renewables in Belgium is deemed relatively low by the Belgium government. "The country is rather flat, densely populated and not very sunny. Large-scale use of hydro power, onshore wind turbines and solar solutions face difficulties regarding the challenges posed by spatial planning and public support."[2] With a population density of 372 persons/km^2 (1-1-2017) Belgium is the EU member state with the third highest population density, which tends to affect public acceptance of onshore wind and ground-mounted PV negatively.

[2] Government of Belgium, 2019: p.29

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 2 and 3 below.

Table 2: 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 3: Overview of instruments used at present to stimulate the uptake of renewables 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

European Alternative Fuels Observatory, https://www.eafo.eu/countries/belgium/1724/incentives

European Commission, 2019. Assessment of the draft National Energy and Climate Plan of Belgium. SWD(2019) 211. Brussels, 18 June https://ec.europa.eu/energy/sites/ener/files/documents/be_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

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

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

Government of Belgium, 2019. Nationaal Energie- en Klimaatplan 2021-2030. Brussels, 18 December https://www.nationaalenergieklimaatplan.be/nl

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

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/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)

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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