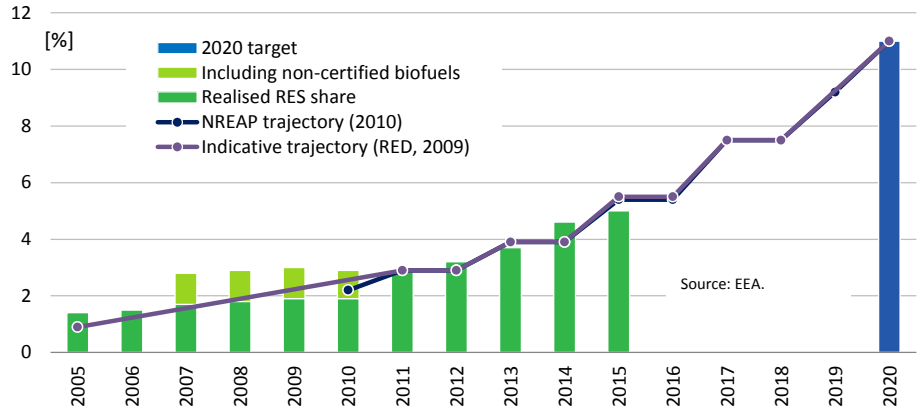
Luxembourg

Renewable Energy Policy Factsheet

September 2017

Summary

Main support instruments for incentivising electricity from renewable energy sources are feed-in tariffs and feed-in premiums. A subsidy instrument is used as well. Households operating small solar installations are entitled to tax benefits. Renewable heat production is promoted through four subsidy instruments. Renewable transport fuels are promoted by way of a biofuels blending quota scheme.

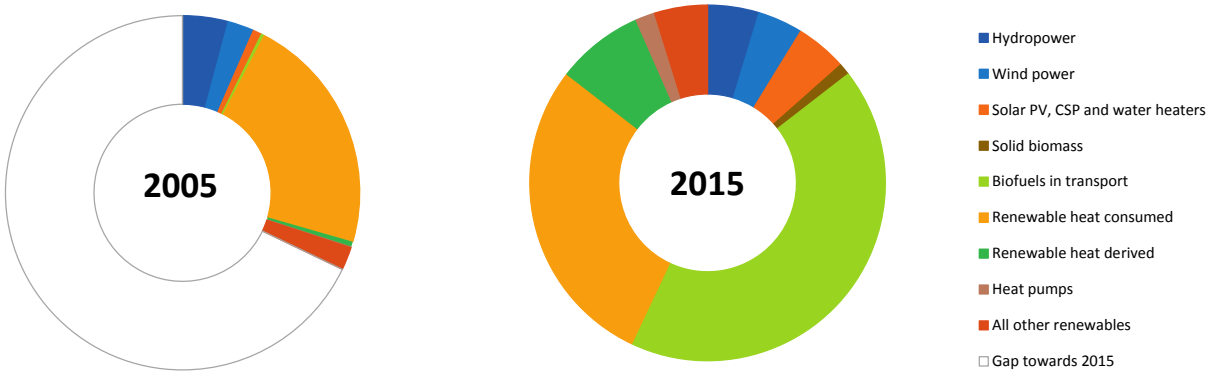


Abbreviations used:

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

Data for 2015

Overall RES share:	5.0%	Avoided fossil fuels:	0.2 [Mtoe]
Overall RES 2020 target:	11.0%	Avoided fuel expenses:	0.1 [billion euro]
Share RES-E in electricity:	6.2%	RES Turnover:	145 [MEUR]
Share RES-T in transport:	6.5%	RES Employment:	2100 [jobs]
Share RES-H/C in heating:	6.9%		



Source: Eurostat, 2017.

	2005	2015		
	Energy	Energy	Employment	Turnover
Hydropower	7.9 ktoe	8.9 ktoe	150 Jobs	1 MEUR
Wind power	4.6 ktoe	7.8 ktoe	50 Jobs	10 MEUR
Solar PV, CSP and water heaters	1.5 ktoe	8.9 ktoe	200 Jobs	26 MEUR
Solid biomass	0.0 ktoe	2.0 ktoe	150 Jobs	15 MEUR
Biofuels in transport	0.5 ktoe	81.0 ktoe	1400 Jobs	80 MEUR
Renewable heat consumed	41.6 ktoe	54.2 ktoe		
Renewable heat derived	1.0 ktoe	15.1 ktoe		
Heat pumps	0.1 ktoe	3.4 ktoe	50 Jobs	0 MEUR
All other renewables	4.0 ktoe	9.2 ktoe	100 Jobs	13 MEUR
Gap towards 2015	129.4 ktoe			

Source: Eurostat, EurObserv'ER, 2017.

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

Main schemes for promoting *electricity from renewable energy sources* except geothermal are a floating feed-in tariff scheme and a feed-in premium scheme. Furthermore, installations generating electricity from renewables are supported through investment subsidies. For companies running such plants all renewable generation technologies are eligible for the investment subsidy. For other operators including households only a PV installation is eligible for an investment subsidy. Income generated by private individuals from photovoltaic installations with a capacity from 1 to 4 kW is exempted from income tax.

Four subsidy instruments are applied to foster *renewable heating and cooling*.:

1. Investment subsidies for aerothermal and geothermal heat pumps as well as renewable energy plants generating heat from solar thermal energy or various types of biomass.
2. Companies investing in renewable energy plants are eligible for investment grants, with the exception of aerothermal and hydrothermal energy
3. Subsidies for companies investing in renewable energies for the production of heat or for the combined production of heat and power (CHP)
4. The Law of 31 May 1999 has introduced the creation of a fund to support Luxembourg municipalities in their investments for environmental protection, including installations producing renewable heat.

Renewable transport fuels are supported by a biofuels blending quota scheme.

OVERVIEW OF MAIN SUPPORTING POLICIES

The main RES support measures applied in Luxembourg are epitomized in Table 1 below. See the previous section for more details.

Table 1: Overview of support schemes to promote renewable energy

		REGULATORY POLICIES					FISCAL INCENTIVE AND PUBLIC FINANCES			
	Feed-in tariffs	Feed-in premium	Tenders	Quota obligation with Tradable Green certificates	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Investment subsidies	Tax credits mechanism I	Tax credits mechanism II	Soft loans
RES-E										
- Offshore wind										
- Onshore wind	x	x					x			
- Solar	x	x					x			
- Hydro	x	x					x			
- Geothermal							x			
- Solid biomass	x	x					x			
- Biogas	x	x					x			
RES-H/C										
- Solar thermal							x			
- Geothermal							x			
- Biomass							x			
- Biogas							x			
- Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves							x			
- Others, i.e. aerothermal, hydrothermal							x			
RES-T										
- Bio gasoline					x					
- Biodiesel					x					

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

Table 2: Overview of instruments used at present

Instrument	*Description*
Feed-in tariffs or premiums	A guaranteed sale of electricity at a pre-set technology-specific preferential price or a technology-specific floating premium on top of the market electricity price, during the support contract period.
Investment subsidies	Projects investing in installations for the generation of electricity from renewables (with the exception of geothermal installations) are eligible for an investment subsidy. Renewable heating and cooling projects are eligible for one or more of four different investment subsidy options.
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.

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=Luxembourg

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/luxembourg/

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.

This project is funded
by the European Union under
contract nº 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 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.