



Luxembourg

December 2015

LOG FILE OF CHANGES IN SUPPORT POLICIES AS COMPARED TO LATEST MEMBER STATE PROGRESS REPORT



The EurObserv'ER project

The EurObserv'ER Barometers monitor the renewable energy progress in each Member State of the European Union. Every two months a barometer dedicated to one particular renewable energy technology is published. Moreover, once a year an *Overview Barometer* collects the main indicators published during the year and completes these with additional renewable sectors which have not been detailed in the individual Barometers. Finally, the Overview Barometer also reports on socioeconomic aspects: employment and turnover in the field of renewables, and the renewable energy investment climate. The country policy reports monitor policy developments by providing an overview of policy changes compared to the Member State Progress Reports (updated until December 2015).

All Barometers are available for download at http://www.eurobserv-er.org. An overview of direct links to Barometers is available in the Annex.

New Barometer releases are announced on Twitter (https://twitter.com/eurobserv er).



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Abstract

In Luxembourg, electricity from renewable sources is mainly promoted through a feed-in tariff as well as through subsidies. Private individuals operating small solar installations are entitled to tax benefits. The production of heat from renewable energy sources is promoted through four different subsidy schemes. Finally, the only support scheme for renewable energy sources used in transport is a quota system. Several policies aim at promoting the development, installation and usage of RES-installations, such as a training programme for RES-installers; a general research, development and demonstration (RD&D) programme and support schemes for RES-H infrastructures (source: RES-Legal Europe).

Abbreviations

BTL	Biomass-to-Liquids		
CHP	Combined heat and power plant		
EEAG	Environmental and energy aid guidelines		
EU-27	European Union, 27 Member States (excludes Croatia)		
EU-28	European Union, 28 Member States (includes Croatia)		
FiP	Feed-in premium (scheme)		
FiT	Feed-in tariff (scheme)		
GHG	Greenhouse gas(es)		
GHG	Greenhouse gas		
ktoe	Kiloton oil equivalent		
MSW	Municipal solid waste		
NREAP	National Renewable Energy Action Plan		
PV	Photovoltaic energy		
RE	Renewable energy		
RED	Renewable Energy Directive		
RES	Renewable energy sources		
RMSW	Renewable Municipal solid waste (renewable fraction in MSW)		
RQS	Renewable quota scheme		
TSO	Transmission system operator		

Renewable energy mix

According to the <u>EurObserv'ER Bridging Report (2015)</u> the amount of renewable energy in Luxembourg for the year 2013 was 233.0 ktoe, +16.2 ktoe (+7.5%) compared to 2012. The 2012 share of renewable energy in Luxembourg amounted to 3.1%, and for 2013 this share amounted to 3.6%.

In this total amount, the 2013 contribution from renewable electricity amounted to 117.9 ktoe (1371 GWh), +3.6 ktoe (+3.2%) compared to 2012, for renewable heat the amount was 57.4 ktoe, +5.9 ktoe (+11.4%) compared to 2012 and for renewable energy in transport the 2013 realisation was 57.8 ktoe, +6.7 ktoe (+13.0%) compared to 2012.

The most important technology in Luxembourg (2013) is hydropower (99.6 ktoe). Second technology is biodiesel (54.6 ktoe). Third comes heat from biomass (53.4 ktoe). The growth rates range from - 53.8% (for bioethanol/bio-ETBE) to 94.7% (for solar power (photovoltaics and concentration solar power)).; the target for 2020 has been defined as 11%

Table Renewable energy production in Luxembourg. Data have been expressed in ktoe and refer to the years 2012 and 2013

Luxembourg		2012	2013	2013 Difference	
		ktoe	ktoe	ktoe	Growth
Renewable	Hydropower	99.6	99.6	0.0	0.0%
Electricity	Geothermal	0.0	0.0	0.0	0.0%
	Solar	3.3	6.4	+3.1	+94.7%
	Tidal & wave	0.0	0.0	0.0	0.0%
	Wind	6.4	7.0	+0.5	+8.0%
	Biomass	5.0	5.0	0.0	0.0%
	Total	114.3	117.9	+3.6	+3.2%
Renewable	Geothermal	0.0	0.0	0.0	0.0%
Heat	Solar	1.7	2.5	+0.8	+47.1%
	Biomass	48.4	53.4	+5.0	+10.3%
	Ambient heat	1.4	1.5	+0.1	+6.2%
	Total	51.5	57.4	+5.9	+11.4%
Renewable	Bioethanol/bio-ETBE	1.3	0.6	-0.7	-53.8%
Transport	Biodiesel	47.4	54.6	+7.2	+15.2%
	Renewable hydrogen	0.0	0.0	0.0	0.0%
	Renewable electricity	2.2	2.4	+0.2	+10.6%
	Other biofuels	0.2	0.2	-0.1	-31.8%
	Total	51.1	57.8	+6.7	+13.0%
Total Renewable (calculated)		216.9	233.0	+16.2	+7.5%

Source: EurObserv'ER 2015

Recent RES Policy Developments

The current EurObserv'ER policy profile is listing recent policy changes in the EU Member States. Starting point for this monitoring is the situation as it has been described in the country's Progress Report (which were due end of 2013). All Renewable Energy Progress Reports are available in English language from www.eurobserv-er.org (translated versions).

Date	Technology	Policy change
January 2014		<no be="" change="" reported="" to=""></no>
February 2014		The European Commission released the Progress Report for the Luxembourg in February 2014. See Section 2 (page 6) to Section 4 (page 19) for a description of policy measures and support schemes.
March - July 2014		<no be="" change="" reported="" to=""></no>
August 2014	RES-E and biogas grid injection	New feed-in tariff for electricity were announced in July 2013, but only enforced by August 1 st , 2014. This regards the 'Règlement grand-ducal du 1er août 2014 relatif à la production d'électricité basée sur les sources d'énergie renouvelables' which modifies other regulation (from 31 march 2010 on electricity market compensation and from 15 December 2011 on biogas commercialisation). The law amends the feed-in tariff for electricity from renewable energy sources. The new tariffs increase among others for wind power (92 EUR/MWh in 2014) and hydropower (between 125 and 180 EUR/MWh in 2014). Biogas is eligible through electricity production and through gas-grid injection (both at an increased tariff). Sources: myenergy.lu, legilux.public.lu, RES-Legal Europe
September - December 2014		<no be="" change="" reported="" to=""></no>
January 2015		On the first on January 2015 an obligation has been put on energy suppliers (gas and electricity) to realise energy saving at all consumer groups: households, industry and the public sector. See also message in June 2015.
February - May 2015		< no change to be reported >
June 2015	Various heating technologies	In the law of 19 June 2015 changes are made to organisation of the electricity and gas markets, by introducing an energy saving obligation on electricity and gas suppliers.
July 2015		<no be="" change="" reported="" to=""></no>
August 2015		No policy change, however, the government announced on August 3 rd a new support scheme for "PV collectives", which will enter into force on 1 January 2016. For more info, see: http://www.gouvernement.lu/5125834/03-schneider-electricite .
September - December 2015		<no be="" change="" reported="" to=""></no>

Note to the reader: the above overview had been compiled with care. However, in case you miss recent developments please be invited to inform EurObserv'ER on policy changes in a Member State. For communication use e-mail (policy@eurobserv-er.org) or Twitter (https://twitter.com/eurobserv_er).

Glossary

Auctions for granting renewable energy support

An auction is a process of granting production or investment support to a specified volume of eligible renewable energy (or renewable energy generation capacity), based on the lowest bids per unit of renewable energy (or renewable energy generation capacity) by eligible renewable project developers. The auction procedure is normally organised by a governmental agency responsible for promoting renewable energy.

Degression rate

See under 'Sliding feed-in tariff'.

Feed-in tariff (FiT)

A technology-specific support scheme which provides for a technologyspecific remuneration per unit of renewable energy payable to eligible renewable energy producers, typically for a period of 10-20 years. The FiT level is set ex ante by the National Regulatory Agency (NRA). It is to cover all future production costs including a *normal* rate of return to capital invested. In many schemes priority network access is offered to eligible renewable electricity generators, whilst a designated third party - e.g. the transmission or distribution network operator concerned - is being mandated to pay the FiT remuneration due. 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.

Feed-in premium (FiP)

A technology-specific support scheme which provides for a technologyspecific subsidy 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 (see under 'Floating FiP') rate, projected by the National Regulatory Agency (NRA) to enable renewable energy generation investments deemed commercially attractive by project developers without yielding supra-

normal profits.

Floating FiP

A feed-in premium, which is periodically adjusted to exactly offset the change in the average energy wholesale market price, based on a prespecified 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)

NRA

National Regulatory Agency.

Renewable quota scheme (RQS)

A renewable quota scheme 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. Typically the renewable quota target is increased gradually over time. Renewable quota systems are also known under terms such as quota (obligation) schemes or renewable portfolio standards.

Request for tenders (RFT)

A request for tenders (RFT) is a formal, structured invitation to suppliers, to bid, to supply products or services. In the public sector an official fee is needed to fortify and secure the tender bid engagement/win documents, such a process may be required and determined in detail by law to ensure that such competition for the use of public is open, fair and free from bribery and nepotism. For example, a government may put a certain level of MW of offshore wind energy at a pre-defined location 'out to tender'; that is, publish an invitation for other parties to make a proposal for the construction of offshore wind farms, on the understanding that any competition for the relevant government contract must be conducted in response to the tender, no parties having the unfair advantage of separate, prior, closed-door negotiations for the contract. An evaluation team will go through the tenders and decide who will get the contract. (source: adapted from Wikipedia.org)

RD&D funding

The funding of research, development and demonstration activities and programmes. For technologies still far from commercial maturity, government grants or subsidies might be considered. For technologies close to commercial maturity which are not taken up for commercial research any way, instruments such as fiscal instruments (tax credits, accelerated depreciation, etc.) and public-private partnerships may be considered, based on shared public and private RD&D funding.

Sliding feed-intariff 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 submarket-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.

Tenders

See 'Request for tenders'.

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Annex

The EurObserv'ER Barometers are all available for download.

Links to all EurObserv'ER publications:

'The State of Renewable Energies in Europe' (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-annual-overview-barometers

Wind Energy Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-wind-energy-barometers

Photovoltaic Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-photovoltaic-barometers

Solar Thermal Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-solar-thermal-and-concentrated-solar-power-barometers

Biofuels Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-biofuels-barometers

Biogas Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-biogas-barometers

Renewable Municipal Waste Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-renewable-municipal-waste-barometers

Solid Biomass Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-solid-biomass-barometers

Heat Pump Barometer (PDF, multiple languages)

http://www.eurobserv-er.org/category/all-heat-pumps-barometers