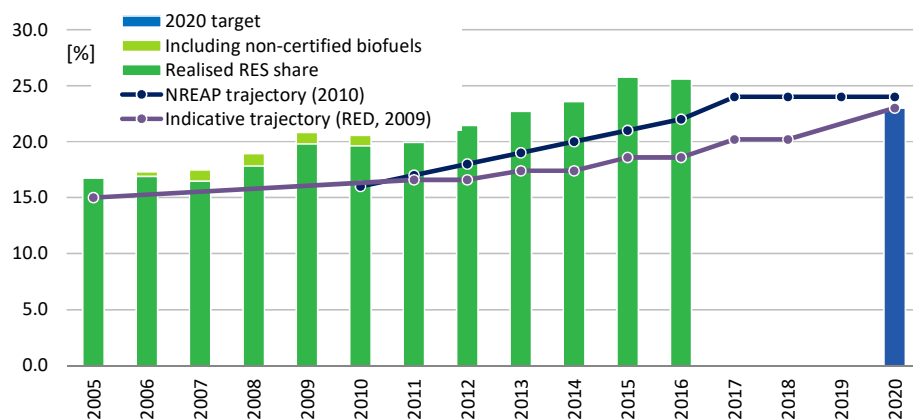


## Summary

The main support scheme to stimulate electricity from renewable energy sources is a feed-in premium scheme. RES-E project developers with installations  $\geq 10$  kW have to acquire access to this scheme by submitting successful bids in tenders. Subsidies and loans can be obtained by RES-E project developers through successful applications at the Climate Change Special Programme or the Lithuanian Environmental Investment Funds (investment subsidies only). RES-E plants are exempted from excise duty. Consumers with a small PV installation can benefit from net metering. Producers of heating and cooling from renewable energy sources are exempt from environmental pollution tax and are eligible for grants. Moreover, heat suppliers are obliged to purchase all heat produced from renewable energy sources. Renewable transport fuels are promoted through reimbursement of raw materials for biofuel production, a biofuels (blending) quota scheme as well as exemption from excise tax and environmental pollution tax.



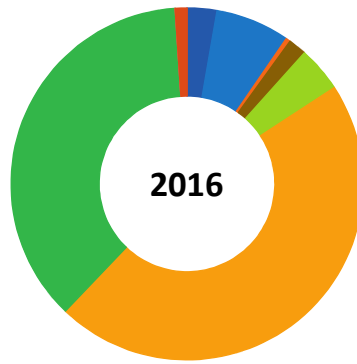
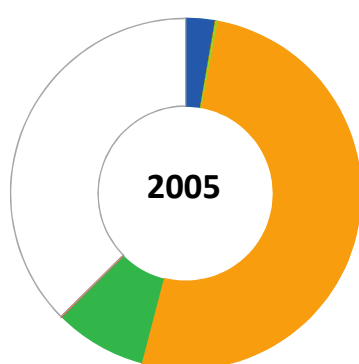
Source: EEA, Eurostat

## Abbreviations used:

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

## Data for 2016

Overall RES share:	25.6%	Avoided fossil fuels:	1.8 [Mtoe]
Overall RES 2020 target:	23.0%	Avoided fuel expenses:	0.4 [billion euro]
Share RES-E in electricity:	16.8%	RES Turnover:	710 [MEUR]
Share RES-T in transport:	3.6%	RES Employment:	18300 [jobs]
Share RES-H/C in heating:	46.5%		



- 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 2016

Source: Eurostat, 2018.

	2005	2016		
	Energy	Energy	Employment	Turnover
Hydropower	36.9 ktoe	37.2 ktoe	800 Jobs	30 MEUR
Wind power	0.2 ktoe	92.7 ktoe	1600 Jobs	60 MEUR
Solar PV, CSP and water heaters	0.0 ktoe	5.7 ktoe	< 400 Jobs	< 20 MEUR
Solid biomass	0.2 ktoe	22.5 ktoe	4700 Jobs	260 MEUR
Biofuels in transport	3.3 ktoe	56.5 ktoe	9200 Jobs	290 MEUR
Renewable heat consumed	694.8 ktoe	631.2 ktoe		
Renewable heat derived	116.3 ktoe	500.7 ktoe		
Heat pumps	0.0 ktoe	0.0 ktoe	400 Jobs	10 MEUR
All other renewables	0.3 ktoe	14.6 ktoe		
Gap towards 2016	509.1 ktoe			

Source: Eurostat, EurObserv'ER, 2018.

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* is promoted mainly through a sliding feed-in premium. RES plants with the installed capacity  $\geq 10$  kW acquire the guaranteed tariff rates through tenders. Furthermore, the producers of renewable electricity may apply for subsidies and loans from the Lithuanian Environmental Investment Fund (LEIF, investment subsidies only) and the Climate Change Special Programme (both loans and subsidies). The LEIF facility is not available for project developers of geothermal installation. All operators of RES-E installations are exempt from excise duty. For solar power installations net-metering is in place.

*Renewable heat* is fostered by a series of instruments. Heat suppliers are obliged to source all their heat deliveries from renewable heat producers. Gas system operators are obliged to purchase biogas offered to them at pre-set administered prices. Project developers of renewable heat production installations can file applications for investment support at LEIF. Consumers of heat from biomass or biogas are eligible for exemption from an Environmental Pollution Tax.

Also for the stimulation of *renewable transport fuels* several instruments are in place. Part of the procurement costs of agricultural raw materials for the production of dehydrated ethanol is reimbursed by an agency established by the Ministry of Agriculture. A biofuels (blending) quota scheme is in place prescribing minimum quota of biofuels blended in all gasoline and automotive diesel sold. Excise duty is due on transport fuels. As for biofuels the excise duty is reduced in proportion to the percentage of biomass per tonne of biofuel. The excise reduction is applicable to bioethanol, biodiesel, bio-ETBE and vegetable oil but not to bio-hydrogen. All consumers using biofuels in vehicles are exempted from environmental pollution tax.

## ***OVERVIEW OF MAIN SUPPORTING POLICIES***

The main RES support measures applied in Lithuania are epitomized in Table 1 below. See the previous section and the notes to Table 1 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 3)	Net-metering/ net-billing	Investment subsidies 1)	Tax credits mechanism I 2)	Tax credits mechanism II 4)	Soft loans 5)
<b>RES-E</b>										
- Offshore wind		x	X				x			x
- Onshore wind		x	X				x			x
- Solar		x	X			x	x			x
- Hydro		x	X				x			x
- Geothermal		x	X				x			x
- Solid biomass		x	X				x			x
- Biogas		x	X				x			x
<b>RES-H/C</b>										
- Solar thermal							x	x		
- Geothermal							x	x		
- Biomass					x		x	x		
- Biogas					x		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		
<b>RES-T</b>										
- Bio gasoline					x				x	
- Biodiesel					x				x	

1) Granted by Climate Change Special Programme or Lithuanian Environmental Investment Fund (LEIF). Geothermal projects are not eligible for an investment subsidy by LEIF.

2) RES-E producers are exempt from excise duty.

3) Heat suppliers are obliged to source all their heat deliveries from renewable heat producers. Gas system operators are obliged to purchase biogas offered to them at pre-set administered prices. A biofuels (blending) quota scheme is in place prescribing minimum quota of biofuels blended in all gasoline and automotive diesel sold.

4) Except for bio-hydrogen, for biofuels the excise duty is reduced in proportion to the percentage of biomass per tonne of biofuel. All consumers using biofuels in vehicles are exempted from environmental pollution tax.

5) Granted by the Climate Change Special Programme.

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

Table 2: Overview of main instruments used at present

<i>Instrument</i>	<i>Description</i>
Feed-in premiums	Guaranteed premium on top of the revenues from electricity sold, during the support contract period. The level is determined (pay-as-bid) by way of tenders.
Investment subsidies	Granted upon successful application by Lithuanian Environmental Investment Fund (LEIF) or Climate Change Special Programme (the latter for RES-E projects only)
Tax credits	RES-E producers are exempt from excise duty. Except for bio-hydrogen, for biofuels the excise duty is reduced in proportion to the percentage of biomass per tonne of biofuel.
Tax credits	Consumers of heat from biomass or biogas are eligible for exemption from an Environmental Pollution Tax. All consumers using biofuels in vehicles are exempted from environmental pollution tax.
Quota schemes	Heat suppliers are obliged to source all their heat deliveries from renewable heat producers. Gas system operators are obliged to purchase biogas offered to them at pre-set administered prices. Importers/suppliers of transport fuels are subject to a renewable quota scheme for biofuels. Compliance based on sample testing rather than certificates-based.
Net metering	Solar power producers using all or part of the electricity produced for their own needs are totally or partly exempt from paying Public Service Obligation on this electricity.

### ***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](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](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](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=Lithuania>

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/lithuania/>

## ***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.

## **Disclaimer**

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