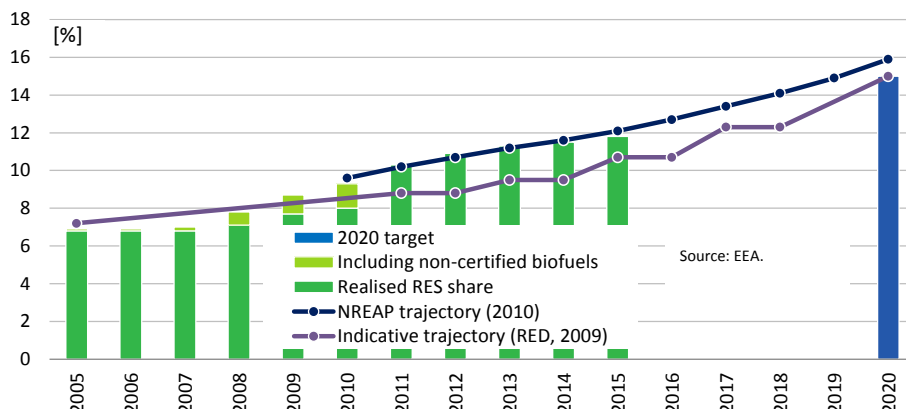


### Summary

Mid-2016 Poland revamped its national support scheme for electricity from renewable energy sources, started to phase out a certificates-backed renewable electricity quota scheme, and put in place a feed-in tariff/feed-in premium (FiT/FiP) system in place with the support levels being determined by approved tender bids. Furthermore, a fiscal and soft loan instrument is used for supplementary support. Three subsidy instruments and a soft loan instrument are deployed for the promotion of renewable heat. Renewable energy in transport is promoted through a biofuels quota scheme.

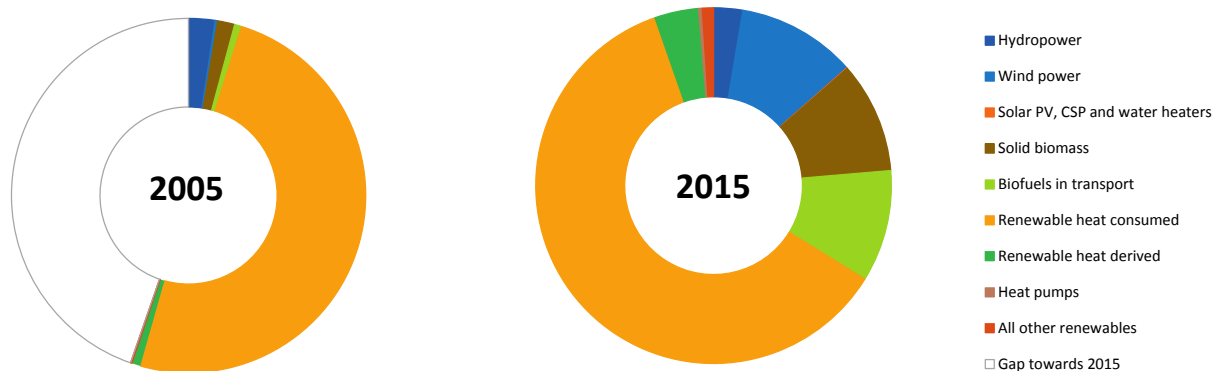


### Abbreviations used:

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:	11.8%	Avoided fossil fuels:	11.1 [Mtoe]
Overall RES 2020 target:	15.0%	Avoided fuel expenses:	2.9 [billion euro]
Share RES-E in electricity:	13.4%	RES Turnover:	5100 [MEUR]
Share RES-T in transport:	6.4%	RES Employment:	43300 [jobs]
Share RES-H/C in heating:	14.3%		



	2005	2015		
	Energy	Energy	Employment	Turnover
Hydropower	184.3 ktoe	202.4 ktoe	1450 Jobs	100 MEUR
Wind power	17.5 ktoe	833.0 ktoe	11500 Jobs	2000 MEUR
Solar PV, CSP and water heaters	0.0 ktoe	4.9 ktoe	3850 Jobs	315 MEUR
Solid biomass	120.4 ktoe	776.2 ktoe	18800 Jobs	1825 MEUR
Biofuels in transport	49.3 ktoe	780.3 ktoe	6000 Jobs	710 MEUR
Renewable heat consumed	3806.8 ktoe	4673.6 ktoe		
Renewable heat derived	60.8 ktoe	307.2 ktoe		
Heat pumps	0.0 ktoe	25.7 ktoe	750 Jobs	65 MEUR
All other renewables	9.6 ktoe	77.9 ktoe	950 Jobs	85 MEUR
Gap towards 2015	3432.5 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***

In Poland support to *electricity from renewable energy sources* is in a state of flux. Mid-2016 the Polish certificates-backed renewable electricity quota scheme was replaced for new installations by a feed-in tariff or premium scheme with the basic rates set by the approved tender bids of the project developers concerned. As per 1 July 2016 re-existing renewable electricity generating installations had to choose between the former and the current national support scheme. To date, the following renewable electricity support instruments are in place:

- A feed-in tariff or premium (FiT/FiP) scheme with allocation to beneficiaries on the basis of tender turn-outs: for operators of pre-existing installations opting for this scheme and all (successfully tendering) operators of RES-E installations that started operations on 1 July 2016 or later
- A certificates based renewable electricity quota scheme: for operators of pre-existing installations opting to hang on to this scheme in lieu of the new FiT/FiP scheme
- A sort of net metering scheme for prosumers with an installation up to 40 kW
- Sales tax exception for RES-E generators
- Soft loans and investment subsidies from the National Fund for Environmental Protection and Water Management to support RES-E project development
- Investment subsidies from the National Fund for Environmental Protection and Water Management to support investment in micro RES-E installations in residential buildings.

For the promotion of *renewable heat* the following instruments are used:

- Three subsidy schemes for installation or refurbishment of renewable heat installations, such as solar heat collectors
- Soft loans from the National Fund for Environmental Protection and Water Management to support investments in renewable heat installations.

*Renewable transport fuels* are promoted by a biofuels quota scheme, applicable to both biofuels and bio-hydrogen.

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

The main RES support measures applied in Poland 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	Net-metering/ net-billing	Investment subsidies 1)	Tax credits mechanism I 2)	Soft loans 3)
RES-E									
- Offshore wind	x	x	x	x			x	x	x
- Onshore wind	x	x	x	x		x	x	x	x
- Solar	x	x	x	x		x	x	x	x
- Hydro	x	x	x	x		x	x	x	x
- Geothermal	x	x	x	x		x	x	x	x
- Solid biomass	x	x	x	x		x	x	x	x
- Biogas	x	x	x			x	x	x	x
RES-H/C									
- 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
RES-T									
- Bio gasoline					x				
- Biodiesel					x				

1) Granted by the National Fund for Environmental Protection and Water Management for RES-E support and by 3 different programmes for renewable heat support

2) Exception from sales tax for generators of renewable electricity from renewable energy sources

3) Granted by the National Fund for Environmental Protection and Water Management for both renewable electricity and renewable heat support

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

Table 2: Overview of main instruments used at present

<b>Instrument</b>	<b>Description</b>
Feed-in tariffs or premiums	Guaranteed electricity price or 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. Open to operators of pre-existing RES-E installations (before 1 July 2016, when this scheme entered into force) opting for this scheme and to operators of new RES-E installations
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. Open to operators of pre-existing RES-E installations (that started production before 1 July 2016), opting to remain a beneficiary of this “old” scheme, that will be gradually phased out completely.
Investment subsidies	Available for successful applicants among project developers of RES-E and renewable heat production projects
Tax credits	RES-E producers are exempt from sales tax.
Net metering	Prosumers with micro RES-E installations can sell electricity supplied to the grid up to a certain maximum at pre-specified, favourable terms.
Soft loans	Granted by the National Fund for Environmental Protection and Water Management

### ***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=Poland>

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/poland/>

## ***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**

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.



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