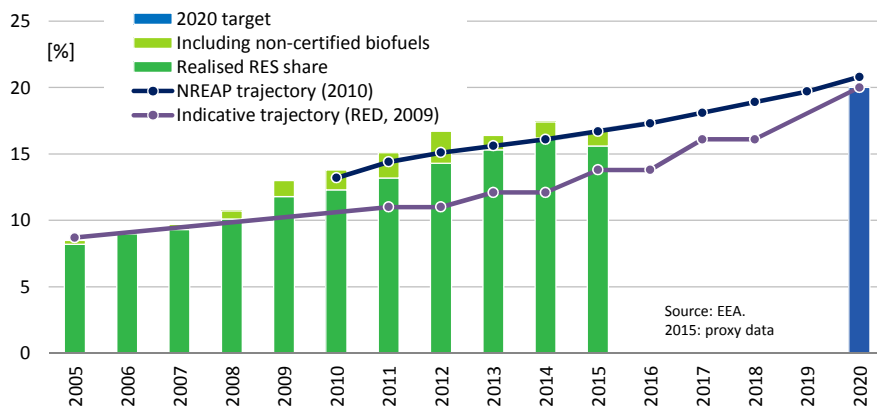


## Summary

On October 2015, a new support scheme (the “Régimen Retributivo Específico”) was established in Spain.

The aim was to grant a specific remuneration regime for new biomass plants located in the mainland electricity system and for wind energy plants. The allocation of the referred specific remuneration regime has been done through a competitive call for tenders. A tax regulation mechanism for investments related to RES-E plants is in place. There is a tax credit for solar thermal and for biofuels in transport. Furthermore a quota system for biofuels is in place. RES-E operators are entitled to grid connection, priority dispatch against the grid operator. Currently no support schemes for RES-H&C are in place in Spain.

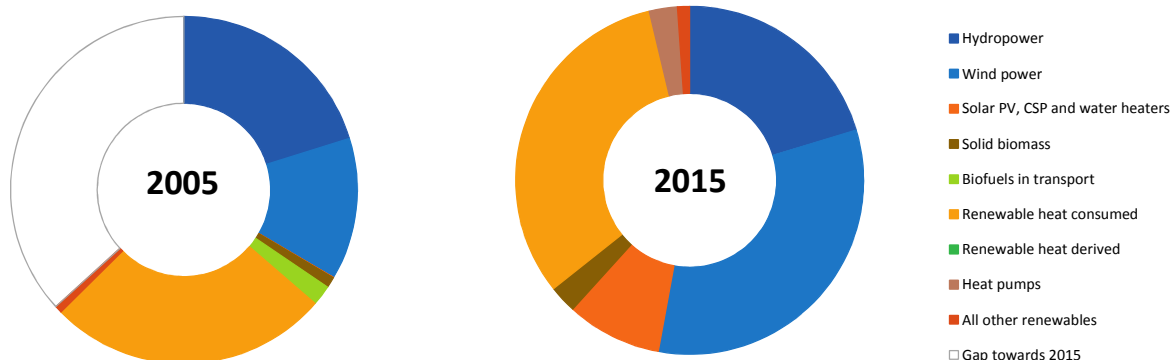


## Abbreviations used:

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:	16.2%	Avoided fossil fuels:	25.4 [Mtoe]
Overall RES 2020 target:	20.0%	Avoided fuel expenses:	6.7 [billion euro]
Share RES-E in electricity:	36.9%	RES Turnover:	13480 [MEUR]
Share RES-T in transport:	1.7%	RES Employment:	66400 [jobs]
Share RES-H/C in heating:	16.8%		



	2005	2015		
	Energy	Energy	Employment	Turnover
Hydropower	2723.5 ktoe	2741.0 ktoe	1600 Jobs	380 MEUR
Wind power	1782.4 ktoe	4389.9 ktoe	22500 Jobs	4500 MEUR
Solar PV, CSP and water heaters	3.5 ktoe	1191.7 ktoe	10500 Jobs	580 MEUR
Solid biomass	135.7 ktoe	345.1 ktoe	15800 Jobs	1530 MEUR
Biofuels in transport	255.7 ktoe	0.0 ktoe	7500 Jobs	920 MEUR
Renewable heat consumed	3531.9 ktoe	4310.1 ktoe		
Renewable heat derived	0.0 ktoe	0.0 ktoe		
Heat pumps	0.0 ktoe	352.7 ktoe	7500 Jobs	5500 MEUR
All other renewables	92.4 ktoe	150.5 ktoe	2600 Jobs	450 MEUR
Gap towards 2015	4956.2 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***

### **RES-E**

In Spain, the generation of electricity from renewable sources was mainly promoted through a price regulation system. This scheme was phased out through Real Decreto-ley 9/2013. A new regulation established by 2013 introduced that fact that a part of the consumers' electricity bill (the "peajes de acceso") will be dedicated to balance the costs incurred by the State arising from the support scheme. It was deemed, however, that the situation would not have allowed this goal to be reached by 2013. For this reason, and together with the high growth of RES-E in the past years, even beyond the set goals, all support schemes for RES-E were blocked.

The Real Decreto 947/2015 was approved to regulate the premium tariff ("Régimen Retributivo Específico"), aiming at supporting new biomass plants located in the mainland electricity system and existing or new wind energy plants. The selected procedure to allocate the premium tariff is a call for tenders regulated through Order IET/2212/2015. The latter also approved the value of the different compensation parameters for the reference RES plants under the new remuneration regime or premium tariff. In 2015 Real Decreto 900/2015 was approved, establishing charges on existing and new self-consumption RES plants, both on capacity and generation levels.

### **RES-H&C**

Almost no support schemes for RES-H&C are in place in Spain. The country has just a funding programme to promote the installation of large thermal plants in buildings that use renewable energy sources, e.g. biomass, solar and geothermal (Programme for Large Thermal Plants - GIT). In addition, a national training system for installers and an obligatory certification for solar thermal panels.

### **RES-T**

Promotion of biofuels in Spain consists of a quota system and a tax regulation mechanism. The quota system obliges whoever feeds fuels in the national system (retail and wholesale operators) as well as consumers relying on sources other than retail and wholesale operators, to feed in or consume a certain amount of biofuels every year. This amount is established in percentage; compliance is proven to the national energy commission (CNE) through certificates. At the end of each year, obligated parties must turn in the certificates corresponding to their biofuel sale / consumption. The CNE checks compliance and collects fees for non-compliance from obligated parties. The penalty fees paid by the parties who did not reach their quota are redistributed among the parties who sold or consumed more biofuels than their set quota. These amounts are redistributed in proportion to the amount of biofuels that complying parties have sold or consumed in addition to their set quota.

## OVERVIEW OF MAIN SUPPORTING POLICIES

Table 1: Overview of support schemes to promote renewable energy in Spain

	REGULATORY POLICIES				FISCAL INCENTIVE AND PUBLIC FINANCES		
	Premium tariff	Tendering	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Capital subsidy, grants	Tax regulation mechanism	Loans
<b>RES-E</b>							
- Offshore wind	○						
- Onshore wind	○	○					
- Solar							
- Hydro							
- Geothermal		○					
- Solid biomass	○	○					
- Biogas	○						
<b>RES-H/C</b>							
- Solar thermal	○				○		
- Geothermal					○		
- Biomass					○		
- Biogas							
- Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves							
- Others, i.e. aerothermal, hydrothermal							
<b>RES-T</b>							
- Bio gasoline			○			○	
- Biodiesel			○			○	

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

Table 2: Brief description of key policy instruments aimed at promoting RES in Spain

<i><b>Instrument</b></i>	<i><b>Description</b></i>
<b>Premium tariff</b> <i>Régimen Retributivo Específico</i>	<p>The premium tariff or “specific remuneration regime” is not technically defined as a support scheme, but as a complementary retribution to allow renewable technologies to compete with traditional technologies in the energy market. The Real Decreto 947/2015 was approved to regulate the premium tariff (“Régimen Retributivo Específico”), aiming at supporting new biomass plants located in the mainland electricity system and existing or new wind energy plants. The selected procedure to allocate the premium tariff is a call for tenders regulated through Order IET/2212/2015. The latter also approved the value of the different compensation parameters for the reference RES plants under the new remuneration regime or premium tariff.</p> <p>In 2015 Real Decreto 900/2015 was approved, establishing charges on existing and new self-consumption RES plants, both on capacity and generation levels. According to RD 900/2015 these are not taxes or compensation for utility losses, but contributions to overall system costs. Self-consumption installations under 10 kW and plants located not on the Spanish mainland will be spared the generation charge, but will still be subject to a fixed charge per kW of capacity.</p>
<b>National plan of scientific research, development and technological innovation 2013 - 2016</b>	<p>This plan is the programming instrument that establishes goals and priorities of the national research policy in the mid-term. The plan covers very different areas and topics. One of its strategic actions is “Reliable, safe and clean energy”. Within this strategic action, ten priority areas of intervention are considered: Solar energy, wind, bio energy, waste, hydrogen, sea and tidal, geothermal, sustainable nuclear power, carbon capture and smart grids</p>
<b>Programme for Large Thermal Plants</b> <i>Pogamme for Large Thermal Plants (GIT)</i>	<p>This funding programme responds to the need of promoting the installation of large thermal plants in buildings that use renewable energy sources, e.g. biomass, solar and geothermal. The new financial line is intended for projects that due to their large size and complexity, have been out of the limits set in the call of the BIOMCASA, SOLCASA and GEOTCASA programmes. To start the programme, IDAE has provided a total budget of € 17 million to finance the projects, which are submitted by the ESEs (Energy Service Companies). The GIT programme finances up to 80% of the project investment with a maximum cap of € 3 million per project.</p>
<b>Certification Programmes for RES installations</b>	<p>This is an obligatory certification for thermal solar panels to comply with the following international standards: UNE-EN 12975-1, ISO 9806 and UNE-EN 12976. Specifically, UNE-EN 12975-1 and ISO 9806 apply to solar collectors with liquid cooling systems and UNE-EN 12976 applies to prefabricated thermal solar panels.</p>
<b>Training programmes for installers</b>	<p>The national system of qualification and professional formation (NSQPF) provides a structured framework for the provision of vocational training in 26 different professional areas, among which “energy” is also considered. Within this area, the following certifications are listed, along with the training requirements necessary for their achievement: Installation and maintaining of PV facilities, Installation and maintaining of solar thermal facilities, Installation and maintaining management of wind parks.</p>
<b>Biofuels quota system</b>	<p>Wholesale and retail operators of fuels, as well as consumers of fuels not supplied by wholesale or retail operators, are obliged to sell / consume a minimal quota of biofuels. The minimal amount is set at a general level (all biofuels) and at a specific level (minimal amount of biofuels in diesel and in gasoline). Each obligated subject will have to present a number of certificates to the National Energy Commission (CNE) to prove compliance</p>

***For further information:***

The Real Decreto 947/2015, [www.boe.es/boe/dias/2015/10/17/pdfs/BOE-A-2015-11200.pdf](http://www.boe.es/boe/dias/2015/10/17/pdfs/BOE-A-2015-11200.pdf)

EEA, 2017. [1] EEA, 2017 [http://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-2#tab-chart\\_3\\_filters=%7B%22rowFilters%22%3A%7B%7D%3B%22columnFilters%22%3A%7B%22pre\\_config\\_country%22%3A%5B%22European%20Union%22%5D%7D%7D](http://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-2#tab-chart_3_filters=%7B%22rowFilters%22%3A%7B%7D%3B%22columnFilters%22%3A%7B%22pre_config_country%22%3A%5B%22European%20Union%22%5D%7D%7D)

Global Status Report by REN21

[http://www.ren21.net/wp-content/uploads/2016/10/REN21\\_GSR2016\\_FullReport\\_en\\_11.pdf](http://www.ren21.net/wp-content/uploads/2016/10/REN21_GSR2016_FullReport_en_11.pdf)

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/spain>

## ***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.



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