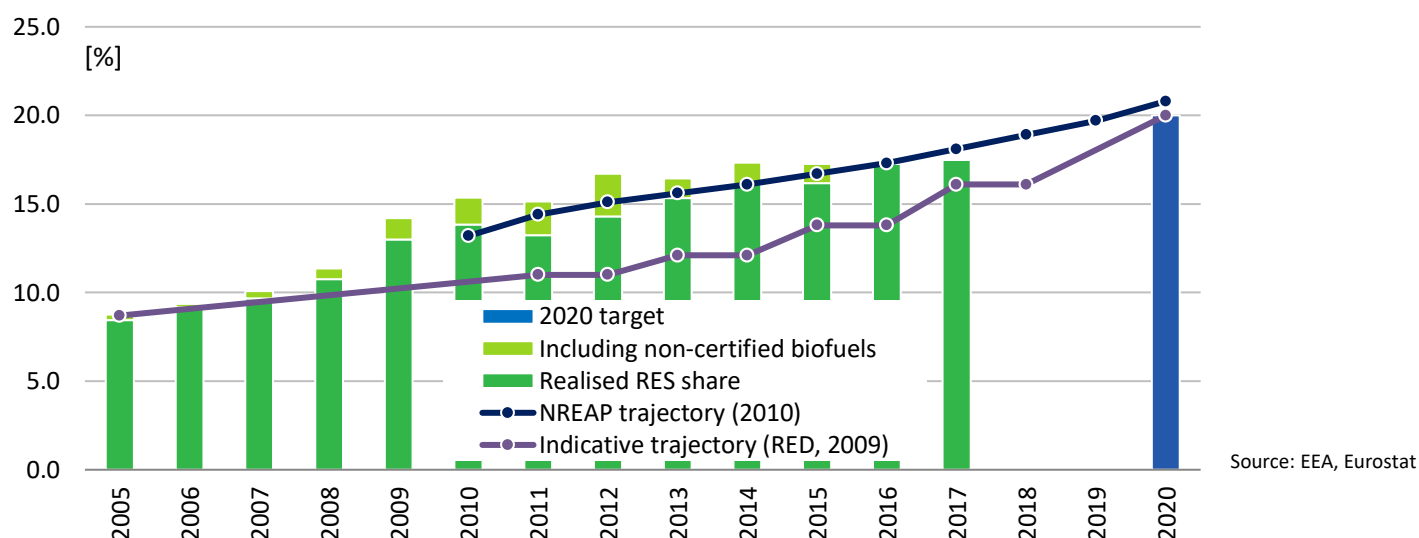


Summary

RES-E is promoted through regime or premium tariff (Régimen Retributivo Específico), aiming at supporting renewable energy plants. Specific RES-E technology call for tenders are organised for new renewable energy plants located in the mainland electricity system. Self-consumption RES plants are promoted through tax exoneration and simplified procedures. There is no support schemes for RES-H&C except a funding programme to promote RES for large thermal plants in buildings. RES-T is promoted through a quota system and a tax regulation mechanism.



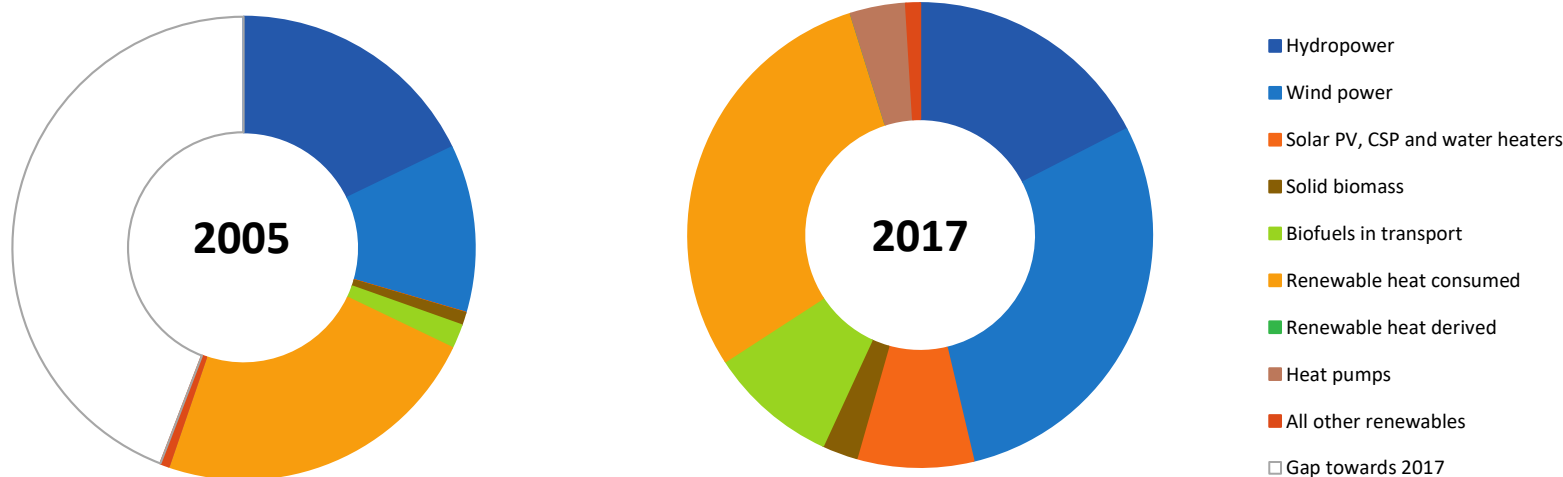
Source: EEA, Eurostat

Abbreviations used:

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

Data for 2017

Overall RES share:	17.5%	Avoided fossil fuels:	25.1 [Mtoe]
Overall RES 2020 target:	20.0%	Avoided fuel expenses:	7.3 [billion euro]
Share RES-E in electricity:	36.3%	RES Turnover:	15080 [MEUR]
Share RES-T in transport:	5.9%	RES Employment:	168800 [jobs]
Share RES-H/C in heating:	17.5%		



Source: Eurostat, 2019.

	2005		2017		
	Energy		Energy	Employment	Turnover
Hydropower	2723.5 ktoe		2665.1 ktoe	11200 Jobs	1070 MEUR
Wind power	1782.4 ktoe		4403.3 ktoe	37200 Jobs	4340 MEUR
Solar PV, CSP and water heaters	3.5 ktoe		1237.9 ktoe	13600 Jobs	1470 MEUR
Solid biomass	135.7 ktoe		375.3 ktoe	20800 Jobs	1030 MEUR
Biofuels in transport	257.3 ktoe		1369.1 ktoe	26600 Jobs	1590 MEUR
Renewable heat consumed	3531.9 ktoe		4476.7 ktoe		
Renewable heat derived	0.0 ktoe		0.0 ktoe		
Heat pumps	0.0 ktoe		588.3 ktoe	56600 Jobs	5330 MEUR
All other renewables	92.4 ktoe		148.7 ktoe		
Gap towards 2017	6737.9 ktoe				

Source: Eurostat, EurObserv'ER, 2019.

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 is promoted through The Real Decreto RD 413/2014 which regulate the specific compensation regime or premium tariff (“Régimen Retributivo Específico”), aiming at supporting renewable energy plants. The Real Decretos 359/2017 and 650/2017 set each one a call for the allocation of the specific compensation regime for new renewable energy plants located in the mainland electricity system. The selected procedure to allocate the premium tariff was a call for tenders regulated through Order ETU/315/2017. The latter also approved the value of the different compensation parameters for the reference RES plants under the specific remuneration regime or premium tariff. In general, all technologies are eligible. Each round tender addresses specific technologies. In the last round tender, PV and wind energy were eligible.

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. Yet, on October 2018 Royal Decree 15/2018 eliminated these charges on existing and new self-consumption RES plants, while it additionally simplified the procedure to apply to the self-consumption scheme for RES plants until 100kW.

RES-H&C

Currently 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
RES-E							
- Offshore wind	○						
- Onshore wind	○	○					
- Solar		○					
- Hydro		○					
- Geothermal		○					
- Solid biomass	○	○					
- Biogas	○						
RES-H/C							
- 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							
RES-T							
- Bio gasoline			○			○	
- Biodiesel			○			○	
- Biohydrogen			○			○	

Sources: EurObserv'ER, Spanish National Climate and Energy Plan, RES-Legal Europe (2019)

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

Instrument	Description
<p>Premium tariff <i>Régimen Retributivo Especifico</i></p>	<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 Especifico”), 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>
<p>State Plan of Scientific and Technical Research and Innovation 2017 – 2020</p>	<p>This Plan establishing goals and priorities of the national research policy in the mid-term in the RES-E, RES-H&C and RES-T sectors was approved at the end of 2017. One of its strategic actions is “Energy and Climate Change”.</p>
<p>Programme for Large Thermal Plants <i>Programme for Large Thermal Plants (GIT)</i></p>	<p>This funding programme responded 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 financial line was 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 provided a total budget of € 17 million to finance the projects, which were submitted by the ESEs (Energy Service Companies). The GIT programme financed up to 80% of the project investment with a maximum cap of € 3 million per project. The budget of the GIT programme has been exhausted.</p>
<p>Certification Programmes for RES installations</p>	<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>
<p>Training programmes for installers</p>	<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>
<p>Biofuels quota system</p>	<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

National Energy and Climate Plans (NECPs), <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/governance-energy-union/national-energy-climate-plans>

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.



Disclaimer

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