

COUNTRY POLICY PROFILE Spain

December 2015

LOG FILE OF CHANGES IN SUPPORT POLICIES AS COMPARED TO LATEST MEMBER STATES 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 socio-economic 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 <u>http://www.eurobserv-er.org/</u>. 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

According to the Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources the target for the share of energy from renewable sources in gross final consumption of energy in the year 2020 for Spain is 20% (according to EurObserv'ER calculation the share was 14.2% in 2012). The Directive has a mandatory 10 % target for transport to be achieved by all Member States, which refers to renewable sources as a whole, not biofuels alone.

In Spain, the main support scheme called "Régimen Especial" (Royal Decree 661/2007) operated until the end of 2011 was suspended at the beginning of 2012. The price regulation system is currently phased out trough Real Decreto 9/2013. In the former system, operators could choose between two options: a guaranteed feed-in tariff and a guaranteed bonus (premium) paid on top of the electricity price derived on the free market.

More recently, the 6th June, Spain approved a clean energy bill that introduces an entirely new subsidy system. The FiT and market price plus premium systems have effectively been abolished retroactively and replaced by a sum to be allocated based on the plant's installed capacity to compensate for investment-related financial outlay. Under the decree, generators will earn a rate of return of about 7.5 percent over their lifetimes. This rate, which may be revised every three years, is based on the average interest of a 10-year sovereign bond plus 3 percentage points. These measures will be implemented retroactively to apply from July 2013.

Currently, there is no support scheme for RES-H&C in place in Spain but building must satisfy a minimal solar contribution of warm sanitary water. Approved in March 2006, through Royal Decree 314/2006 of 17 March 2006, the Building Technical Code (CTE – Código Técnico de la Edificación) requires all new or renovated buildings to cover 30%-70% of the Domestic Hot Water demand with solar thermal energy. Some exceptions are defined in the law, mainly in the case of buildings that either satisfy their demand of warm water by other renewables or by cogeneration or for shaded buildings.

Concerning the transport, promotion of biofuels consists of a quota system. Here also the government has decided to review its ambition downward with his decision on 22 February 2013 to reduce its incorporation target to 4.1% in 2014 from 6.5%, with specific incorporation targets in diesel fuel that dropped from 7 to 4.1%, and from 4.1 to 3.9%

Abbreviations

BTL	Biomass-to-Liquids
СНР	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

Spain is among the countries of the European Union's most richly endowed with renewable energy deposits. Load factors in the field of wind and solar factors are among the highest in Europe, making the most productive wind turbines or solar power plants and most profitable in Europe. The most developed renewable energy are logically the wind sector, solar photovoltaic, solar thermal and concentrated solar. The countries represented in 2012 a quarter of the solar thermal energy (including concentrated solar power) and nearly a quarter of the wind energy production in the European Union.

According to the <u>EurObserv'ER Bridging Report (2015)</u> the amount of renewable energy in Spain for the year 2013 was 15019.2 ktoe, +908.1 ktoe (+6.4%) compared to 2012. The 2012 share of renewable energy in Spain amounted to 14.3%, and for 2013 this share amounted to 15.4%; the target for 2020 has been defined as 20%.

In this total amount, the 2013 contribution from renewable electricity amounted to 9661.6 ktoe (112364 GWh), +1934.7 ktoe (+25.0%) compared to 2012, for renewable heat the amount was 4357.5 ktoe, +174.7 ktoe (+4.2%) compared to 2012 and for renewable energy in transport the 2013 realisation was 1000.1 ktoe, -1201.2 ktoe (-54.6%) compared to 2012.

The most important technology in Spain (2013) is wind power (4634.8 ktoe). Second technology is heat from biomass (4101.1 ktoe). Third comes hydropower (3531.6 ktoe). The growth rates range from -62.1% (for biodiesel) to 70.0% (for hydropower).

Spain		2012	2013	Diffe	erence
		ktoe	ktoe	ktoe	Growth
Renewable	Hydropower	2077.6	3531.6	+1454.0	+70.0%
Electricity	Geothermal	0.0	0.0	0.0	0.0%
	Solar	1029.1	1091.3	+62.3	+6.0%
	Tidal & wave	0.0	0.0	0.0	0.0%
	Wind	4253.8	4634.8	+381.0	+9.0%
	Biomass	366.5	403.9	+37.4	+10.2%
	Total	7726.9	9661.6	+1934.7	+25.0%
Renewable	Geothermal	17.6	18.1	+0.5	+2.8%
Heat	Solar	220.3	238.3	+18.0	+8.2%
	Biomass	3904.9	4101.1	+196.2	+5.0%
	Ambient heat	40.0	40.0	0.0	0.0%
	Total	4182.8	4357.5	+174.7	+4.2%
Renewable	Bioethanol/bio-ETBE	198.4	167.1	-31.3	-15.8%
Transport	Biodiesel	1888.9	716.3	-1172.6	-62.1%
	Renewable hydrogen	0.0	0.0	0.0	0.0%
	Renewable electricity	114.1	116.7	+2.7	+2.3%
	Other biofuels	0.0	0.0	0.0	0.0%
	Total	2201.4	1000.1	-1201.2	-54.6%
Total Renewable	(calculated)	14111.1	15019.2	+908.1	+6.4%

Table Renewable energy production in Spain. Data have been expressed in ktoe and refer to the years2012 and 2013. Note: Contribution from ambient heat in 2013 was 0 ktoe in EurObserv'ER BridgingReport. Value for the Policy Report has been assumed equal to 2012 (40.0 ktoe).

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 <u>www.eurobserv-er.org</u> (translated versions).

Date	Technology	Policy change
June 2014	Renewable electricity	The 6 th June, Spain approved a clean energy bill (Royal Decree 413/2014) that introduces an entirely new subsidy system that will cap the earnings of all existing renewable power plants. Under the decree, generators will earn a rate of return of about 7.5 percent over their lifetimes. This rate, which may be revised every three years, is based on the average interest of a 10-year sovereign bond plus 3 percentage points. These measures will be implemented retroactively to apply from July 2013. According the Industry Ministry, Renewable energy subsidies had to be revised or the power system would have gone bankrupt.
May 2015	Renewable electricity	The Ministry of Industry, Energy and Tourism published in May 2015 the "Report on environmental sustainability of energy sector planning 2015-2020". In this report, the Spanish Ministry of Industry intends to add some 8,537 MW of renewable energy capacity between 2015 and 2020 The country's installed renewable energy capacity will increased from 48,267 MW in 2015 to 56,804 MW by 2020. The government's plan calls for the construction of 6473 MW, 1,370 MW of solar photovoltaic facilities and 211 MW of solar thermal power. http://www.minetur.gob.es/energia/planificacion/Pla nificacionelectricidadygas/desarrollo2015- 2020/Informesostenibilidad/ISA_VERSI%C3%93N_WE B_E.pdf
May 2015	Subsidy Scheme for Renewable Heat and Energy Efficiency	Aid Programme for Rehabilitation of Existing Buildings Energy (Program PAREER-CRECE) On 5 May, the Ministry of Industry, Energy and Tourism approved the so-called PAREER-CRECE programme, a support scheme for increasing the energy efficiency of existing buildings.

	To encourage and promote the implementation of reform measures that promote energy conservation, improving energy efficiency, use of renewable energy and reducing carbon dioxide emissions in existing buildings, regardless of their use and the legal nature of the owners as well as help achieve the objectives set out in Directive 2012/27 / EU on energy efficiency, and the Plan of Action 2014-2020 to be created once growth and employment opportunities in various economic sectors, especially in the construction sector, encouraging urban regeneration Ministry of Industry, Energy and Tourism, through the Institute for Diversification and Saving of Energy (IDAE), starts launched a specific program of grants and funding worth 200 million euros.
	 The actions should fit into one or more of the following types: 1. Improving energy efficiency of the thermal envelope. 2. Improving the energy efficiency of heating and lighting. 3. Replacing conventional energy biomass heating systems. 4. Replacing conventional geothermal energy in thermal plants.
	 They will be eligible for support under this program: a) Owners of existing buildings for any use, whether natural persons or having legal personality of private or public nature. b) The owner communities or groups of communities of owners of residential buildings for housing use, constituted as horizontal property. c) The owners are grouped together and building owners and have not granted the constituent title of condominiums. d) The operators, tenants or concessionaires buildings. e) The energy services companies.
	 Amount of subsidy: Solar thermal systems: granted by 20 % of the eligible investment costs Insolation measures: 30 % grant Biomass boilers: granted by 25 % Geothermal heating plants: granted by 30 % Loans are offered optional for 70 % of the
	 c) The owners are grouped together and building owners and have not granted the constituent title condominiums. d) The operators, tenants or concessionaires buildings. e) The energy services companies. Amount of subsidy: Solar thermal systems: granted by 20 % o the eligible investment costs Insolation measures: 30 % grant Biomass boilers: granted by 25 % Geothermal heating plants: granted by 30 Loans are offered optional for 70 % of the system costs

	Details (in english): http://www.measures-odyssee- mure.eu/public/mure_pdf/household/SPA40.PDF http://www.solarthermalworld.org/content/subsidy- scheme-renewable-heat-and-energy-efficiency Details (in Spanish) http://www.idae.es/index.php/id.858/lang.uk/relmen u.409/mod.pags/mem.detalle http://www.controlastuenergia.gob.es/Paginas/Index .aspx
July 2015 – December 2015	No policy change.

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), Twitter (<u>https://twitter.com/eurobserv_er</u>).

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 technology-specific 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
 A technology-specific support scheme which provides for a technology-specific 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 supranormal 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 publicIn Green public procurement contracting authorities take environmentalprocurementissues 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 A request for tenders (RFT) is a formal, structured invitation to suppliers, to tenders (RFT) 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-in-
tariffA 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 creditsThese 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'.

References

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Annex

EurObserv'ER Barometers published are all available for download. Direct links to all EurObserv'ER publications:

'*The State of Renewable Energies in Europe*' (PDF, multiple languages) <u>http://www.eurobserv-er.org/category/all-annual-overview-barometers</u>

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