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# Assessment of climate change policies in the context of the European Semester

## Country Report: Spain



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The report provides an overview of current emission trends and progress towards targets as well as policy developments that took place over the period May 2012 to January 2013.

The content of the report represents the state of knowledge in February 2013, specific updates were made adding the latest official greenhouse gas emission data by the European Environment Agency (EEA).

Please feel free to provide any comments or suggestions to the authors through the contacts listed above.

## Short summary

- **Background:** *In the past, Spain has put much emphasis on the transition to a green economy through several initiatives and measures. Recently, however, the situation seems to have changed significantly, with a roll-back of support for renewables.*
- **GHG target:** *Non-ETS emissions in 2011 were below of the 2013 ESD target but according to the latest national projections Spain is expected to miss its 2020 target with existing and additional measures.*
- **Policy development:** *Some new developments are taking place, but the most important ones relate to the provisions halting the support of renewable electricity generation.*

## I Background on climate and energy policies

Climate policy has been an important topic of debate in the past years in Spain. Policies and strategies are usually designed at central level, although regions can count on a high level of independence and may draft and implement local plans and strategies according to their specificities and needs. The overarching strategy is the Estrategia Española de Cambio Climático y Energía Limpia (Spanish strategy for climate change and clean energy), which has been in force since 2007 and will run until 2020. Under the strategy, action plans (e.g., on energy efficiency and savings) were implemented in 2008 but ceased to be in effect in 2012.

Spain has put much emphasis on the transition to a green economy, mainly through the 2011 Sustainable Economy Act. The act encompasses a wide range of initiatives and measures aiming at a shift to a sustainable economy, including energy efficiency, sustainable transport or renewable energies. In 2011, the creation of green jobs was seen as a priority in Spain (OECD 2011). Currently there are 400,000 to 500,000 green jobs in Spain, around 2.2% of total employment. A report by the International Labour Organisation (ILO 2012) estimates, that Spain's green economy could generate more than one million jobs by 2020, depending on the political support. The biggest potential seems to be in the construction sector due to renovation of buildings to make them more energy efficient.

However, the recent austerity measures might put this development at risk. The Spanish climate policy was mainly based on the promotion of renewable electricity generation via a feed-in tariff scheme. However, this cornerstone of climate policy has effectively been abandoned. According to RDL 1/2012, the scheme has been abandoned because Royal Decree 6/2009 established specific goals related to balancing the costs of the support scheme to be reached by 2013. As these goals could not have been reached, the support scheme has been halted.

New measures are planned such as a renewable heat incentive scheme or a certification scheme for energy efficiency in the building sector. However, these measures still need to be implemented and prove their appropriateness and effectiveness. The general economic situation might seriously limit the possibilities for governmental programs due to budgetary constraints. Long-term plans for climate policies are present. On 27

December 2012 the Ministry of Environment has announced to be currently working on developing a 2020 roadmap for reducing emissions by 10% by 2020. This plan will cover ETS and non-ETS sectors (e.g., transport, waste, residential sector). No further information is available yet (MAGRAMA 2013c).

## 2 GHG projections

### Background information

In 2011, Spain emitted 350.5 Mt CO<sub>2</sub>eq (UNFCCC inventory 2011), 24% more than in 1990. Energy use accounts for around 27% of total emissions, and emissions in this sector increased by 28% between 1990 and 2011, with a slight drop in 2011. This reflects the increasing number of dwellings, improved living standard, and growing floor area of commercial premises, which could not be outweighed by improved insulation in buildings and use of solar energy. Emissions from transport, the second most important emission source, have increased by more than 50% since 1990. Emissions from energy supply increased steadily before the beginning of the financial crisis, which marked a sharp drop in emissions. The growing demand for electricity is increasingly met with natural gas and renewable energies, so emissions from energy supply in 2010 were 11% below 1990 levels. However, emissions from this sector increase from 2010 to 2011 again and now account for 25% of total emissions. Emissions from industrial processes and agriculture grew only slightly between 1990 and 2007. This reflects the boom in the construction industry and the use of halocarbons as substitutes for ozone-depleting substances. Since then emissions from industry dropped and were in 2011 almost back at 1990 levels (UNFCCC inventory 2011, EEA 2012c, UNFCCC 2012).

### Progress on GHG target

There are two sets of targets to evaluate: 1) the Kyoto Protocol targets for the period 2008-12 (which has just ended) and 2) the 2020 targets for emissions not covered by the EU ETS.

Under the Kyoto-Protocol the emission reduction target for Spain for the period 2008-2012 has been set to plus 15% based on 1990 for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O and on 1995 for F-gases. An evaluation of the latest complete set of greenhouse gas data (for the year 2011) shows that Spain's emissions have increased on average by 21% since 1990 (EEA 2013a). Therefore, Spain is not likely to meet its Kyoto target through domestic emissions reductions directly.

By 2020, Spain needs to decrease its emissions not covered by the EU ETS by 10% compared to 2005 according to the Effort Sharing Decision (ESD) <sup>(1)</sup>. According to the 2011 inventory data, emissions in 2011 were 6% below the Annual Emissions Allocation (COM 2013) for the year 2013. Up to 2020, national projections show that Spain miss its

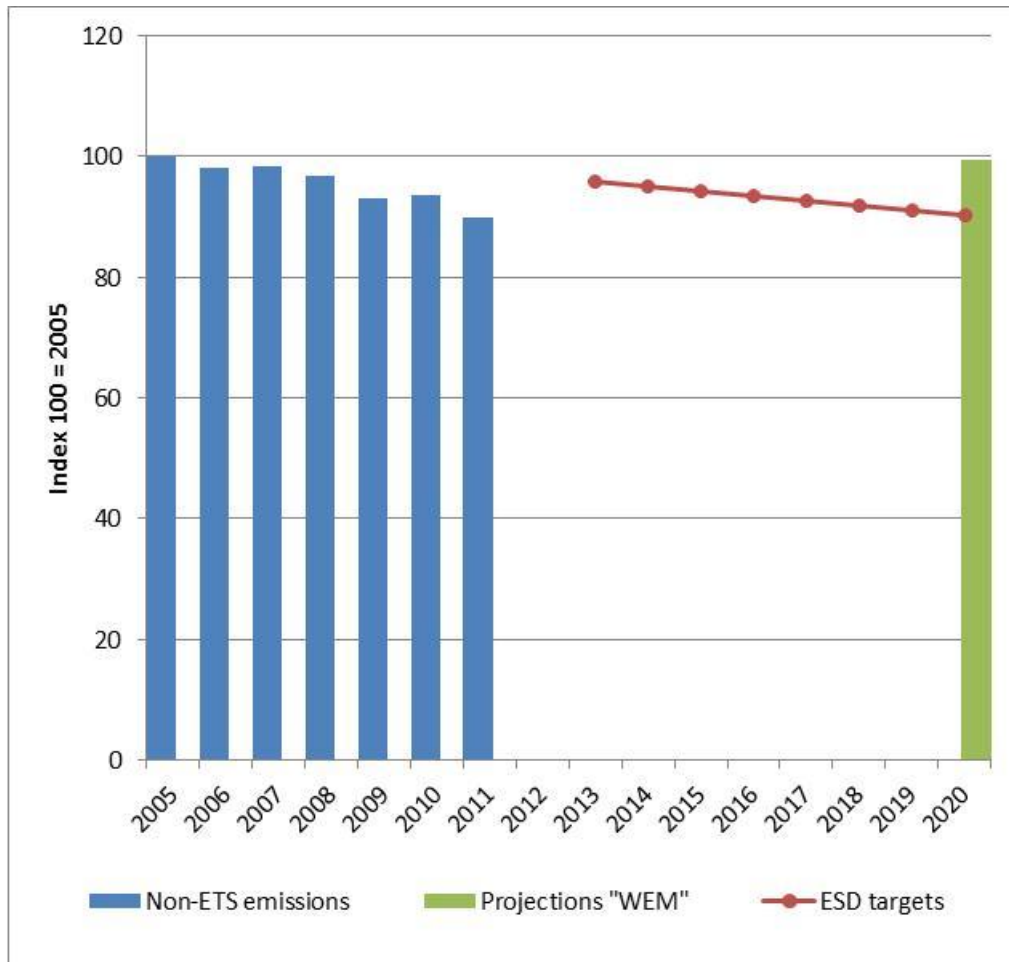
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<sup>1</sup> Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020.

target in scenarios with both existing and additional measures by 9% or 7% respectively <sup>(2)</sup> (EEA 2013b).

Figure 1 shows Spain's non-ETS emissions until 2011, its targets under the ESD for the period 2013-2020, and the projections with existing measures for 2020.

**Figure 1: Non-ETS emission trends and projections compared to the ESD targets**



Source: EEA. Projections are based on 15/04/2013 draft GHG inventory submissions under the UNFCCC and MS projections submitted

<sup>2</sup> Calculations are based on domestic emissions only, without accounting for possible use of flexibility options. The 2020 targets and 2005 non-ETS emissions are all consistent with 2013-2020 ETS scope, i.e. they take into account the extension of the ETS scope in 2013 and the unilateral inclusion of installation in 2008-2012.

**Table I: GHG emission developments, ESD-targets and projections (in Mt CO<sub>2</sub>eq)**

	1990	2005	2010	2011	ESD target*		2020 Projections**	
					2013	2020	WEM	WAM
Total	282.8	432.8	348.6	350.5				
Non-ETS emissions (% from 2005)		238.8	223.7	214.5	228.9	207.6	228.5	224.7
				-10%	-4%	-10%	-1%	-3%
Energy supply (% share of total)	77.7	126.1	72.6	86.5				
	27%	29%	21%	25%				
Energy use (w/o transport) (% share of total)	73.4	115.2	98.5	94.1				
	26%	27%	28%	27%				
Transport (% share of total)	55.7	100.8	91.9	87.4				
	20%	23%	26%	25%				
Industrial processes (% share of total)	25.8	33.6	28.3	26.1				
	9%	8%	8%	7%				
Agriculture (% share of total)	37.2	39.5	38.7	37.3				
	13%	9%	11%	11%				

Source: UNFCCC inventories; EEA (2013b); COM (2013), Calculations provided by the EEA and own calculations.

\* The ESD target for 2013 and for 2020 refer to different scopes of the ETS: The 2013 target is compared with 2011 data and is therefore consistent with the scope of the ETS from 2008-2012; the 2020 target is compared to 2020 projections and is therefore consistent with the scope of the ETS from 2013-2020. Non-ETS emissions in 2005 for the scope of the ETS from 2013-2020 amounted to 230.6 Mt CO<sub>2</sub>eq.

\*\* 2013 projections with existing measures (WEM) or with additional measures (WAM).

Legend for colour coding: green = target is being (over)achieved; orange = not on track to meet the target

Total greenhouse gas emissions (GHG) and shares of GHG do not include emissions and removals from LULUCF (carbon sinks) and emissions from international aviation and international maritime transport.

National projections of GHG emissions up to 2020, summarised by the EEA, need to be prepared by the Member States in accordance with the EU Monitoring Mechanism <sup>(3)</sup> every two years, and the latest submission was in 2013. The projections need to be prepared reflecting a scenario that estimates emissions reductions in line with policies and measures that have already been implemented (with existing measures, WEM), and an additional scenario that reflects developments with measures and policies that are in the planning phase (with additional measures, WAM) may also be submitted.

In the following two tables, these measures - as outlined by Spain as basis for the projections as of April 2011 <sup>(4)</sup> - have been summarised with a focus on national measures and those EU instruments expected to reduce emissions the most <sup>(5)</sup>. An update on the status of the policies and measures is included in order to assess the validity of the scenarios.

<sup>3</sup> Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol.

<sup>4</sup> The respective policies and measures were not available at the time of the preparation of this country report. Thus, policies and measures as outlined in April 2011 are given here.

<sup>5</sup> The implementation of the EU-ETS has not been included. Other EU Directives have only been considered if they have been outlined in the projections as one of the main instruments to reduce GHG emissions.

**Table 2: Existing and additional measures as stated in the 2011 GHG projections**

Existing Measures (only important national measures; w/o EU legislation)		Status of policy in January 2013
Cross-cutting	Act 2/2011, Sustainable Economy Act [Ley de Economía Sostenible]: Improve the competitiveness of the Spanish economy by promoting environmental sustainability in many activities	In force
	Spanish Strategy for Climate Change and Clean Energy [Estrategia Española de Cambio Climático y Energía Limpia (EECCCEL)] and the related Plan of Urgent Measures [Plan de Medidas Urgentes]	In force
Energy	Promotion of renewable electricity via Royal Decree 661/2007, which regulates the activity of electric energy generation under the special regime	On hold
	Phasing out of aid to national coal: National Plan for Coal Strategic Reserve 2006-2012 and New Model for Integrated and Sustainable Development in Mining Regions	A new draft for a coal plan has been presented (Diario de Teruel 2013).
Energy Efficiency	Royal Decree 47/2007, which approves the basic procedure for certifying energy efficiency in new buildings	In force, a new regulation is being drafted
	Spanish Energy Saving and Efficiency Strategy and its related plans (2005-2007 and 2008-2012)	The plan is in place until 2020
	Promotion of Energy Services Contracting Plan [Plan de Impulso a la contratación de Servicios Energéticos]	In force
	Royal Decree 314/2006, which approves the Technical Building Code	In force
	Royal Decree 1027/2007, which approves the Regulation of Thermal Installations in Buildings (promotion of renewable heat)	In force
Transport	Regulation 443/2009, which sets emission performance standards for new passenger cars: limitation of CO <sub>2</sub> emissions in new cars of max. 130 gCO <sub>2</sub> /km to the average emissions by 2015	European regulation in force
	Voluntary agreements for control and restrictions on the production and use of fluorinated compounds	In force
	Promotion of biofuels in road traffic: based on the National Action Plan for Renewable Energies 2011-2020	Quota system in place until 2013
Other non-ETS sectors	Afforestation and reforestation of land with little or no tree crown cover (Spanish Forestry Plan 2002-2032)	In force
	Promotion of organic farming via Plan of Actions for the Promotion of Organic Farming 2007-2010, National Strategic Plan for Rural Development 2007-2013	In force

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, April 2011.

Additional Measures: Still to be implemented (only important national measures; w/o EU legislation)		Status of policy in January 2013
Transport	Promotion of renewal of the aircraft fleet and promotion of air traffic operation modes aimed at improving the energy efficiency	No information found, there was a mention of this aspect in the 2011 Action Plan; however, no further details have been found.
Other non-ETS sectors	Review of the reduction of organic matter sent to landfills: Draft Law on Waste and Contaminated Soils	Law 22/2011 on waste and contaminated soils came into force in July 2011. This law aims at regulating waste management by establishing measures that avoid their production and that limit their impacts. Furthermore, the law regulates juridical aspects of contaminated soil.

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, April 2011.

### 3 Evaluation of National Reform Programme 2012 (NRP)

In April of each year, Member States are required to prepare their National Reform Programmes (NRPs), which outline the country's progress regarding the targets of the EU 2020 Strategy. The NRPs describe the country's national targets under the Strategy and contain a description of how the country intends to meet these targets. For climate change and energy, three headline targets exist: 1) the reduction of GHG emissions, 2) the increase of renewable energy generation, and 3) an increase in energy efficiency <sup>(6)</sup>.

In the following table, the main policies and measures as outlined in the NRP of April 2012 <sup>(7)</sup> have been summarised, and their current status (implemented, amended, abolished, or expired) is given, with specifics on latest developments.

**Table 3: Main policies and measures as outlined in the NRP, April 2012**

Suspension of RES-E incentives	
Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented in 2012
Description of policy or measure	Royal Decree-law 1/2012 completely halted support schemes for RES-E in Spain.

<sup>6</sup> There are specific targets for all MS by 2020 for non-ETS GHG emission reductions (see section 2) as well as for the renewable energy share in the energy mix by 2020 (see section 4, renewable energies). Specific energy efficiency targets will be defined (or revised) by the MS until the end of April 2013 in line with the methodology laid out in Article 3 (3) of the Energy Efficiency Directive (Directive 2012/27/EU).

<sup>7</sup> All NRPs are available at: [http://ec.europa.eu/europe2020/documents/related-document-type/index\\_en.htm](http://ec.europa.eu/europe2020/documents/related-document-type/index_en.htm)



**Revision of RES plan**

Status as stated in the NRP	Announced
Status as per Jan 2013	Not implemented
Description of policy or measure	Besides the announcement no details on the plan could be identified in public sources.

**Revision of electricity distribution remuneration**

Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented in 2012; other law to be proposed to regulate specific aspects of the remuneration perceived by DSOs for non-amortized assets (no date set)
Description of policy or measure	RDL 13/2012 established new criteria for DSOs' remuneration, namely a different system for the amortization of assets and a shift of two years for accrual and payments to the DSO (Art. 5).

**CNE (National Energy Commission) and IDAE (Institute for Diversification and Energy Savings) funds used to reduce system costs**

Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented in 2012
Description of policy or measure	RDL 13/2012 established that funds of these two subjects will be used to reduce system costs (Arts. 8 and 9).

**Revision of transmission system operator remuneration system**

Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented in 2012
Description of policy or measure	RDL 13/2012 established new criteria for TSOs' remuneration, namely a shift of two years for accrual and payments to the DSO (Art. 6).

**Reduction of coal electricity generation incentive to 50 million**

Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented
Description of policy or measure	The Ministry of Energy, Industry and Tourism has elaborated a decree in 2013 (R 13/02/2013) fixing incentives for the coal sector for electricity generation. The costs for the incentive in 2013 should not exceed a maximum of € 419 million, € 75 million less than in 2012 (Asena, 2013).

**Capacity payments reduction**

Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented in 2012
Description of policy or measure	RDL 13/2012 reduced the two types of incentives (long-term capacity investment and environmental investment) to 23400 €/MW/year and 7875 €/MW/year.

**Revision of interruption system remuneration**

Status as stated in the NRP	Announced
Status as per Jan 2013	Partially implemented
Description of policy or measure	RDL 13/2012 requested the Ministry of Energy, Industry and Tourism to elaborate a proposal in 2013.

**Increase of income from usage fees**

Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented
Description of policy or measure	Usage fees for electricity have increased from 1 April 2012.

**Revision of energy planning**

Status as stated in the NRP	Announced
Status as per Jan 2013	Consultation until end of February 2013; document being drafted
Description of policy or measure	<p>The document will encompass the following areas (REE 2013):</p> <ul style="list-style-type: none"> <li>• Connection of the northwest zone of Spain with the central zone.</li> <li>• Progress on the development of the Transmanche axis in order to improve the connection between the central plateau and the Mediterranean coast.</li> <li>• Improvement of meshing to strengthen the grid in the entire area of northern Spain.</li> <li>• Development of the Almaraz-Guillena axis.</li> <li>• Mallorca-Ibiza interconnection, which will facilitate an improved and more reliable electricity supply to the consumers of these islands.</li> <li>• Progress on the interconnection with France.</li> </ul>

**New legislation as regards net metering**

Status as stated in the NRP	Announced
Status as per Jan 2013	Draft law available since November 2011
Description of policy or measure	Although a draft law has been available for more than a year, no actual implementation has taken place yet. It is expected that implementation will take place in the first term of 2013 (Suelosolar 2013).

**Elaboration of a plan for energy efficiency and savings in public buildings**

Status as stated in the NRP	Announced
Status as per Jan 2013	Still not implemented
Description of policy or measure	A plan for energy efficiency and savings 2011-2020, including measures for the public sector; this, however, precedes the date of the NRP.

**Reduction of regulated activities in the gas sector**

Status as stated in the NRP	Announced
Status as per Jan 2013	Implemented (March 2012)
Description of policy or measure	Measures were implemented but in the wider context of guaranteeing the economic and financial sustainability of the gas sector. Measures relating to costs and revenues of regulated activities were implemented (CNE 2012).

## 4 Policy development

This section covers significant developments made in key policy areas between May 2012 and January 2013. It does not attempt to describe every instrument in the given thematic area. The time-frame was chosen based upon the release of the National Reform Programmes (in the section above) in April 2012, which contain the status quo for policy on most topics.

### Environmental Taxation

The implicit tax rate on energy in Spain in 2009 was slightly below the EU average and had declined 13.3% since the year 2000 (Eurostat, 2013). Combined with below-average energy intensity, this low implicit tax rate contributed to Spain's energy taxation as a percentage of GDP ranking 26th in the EU in 2010 (1.3%). Environmental taxation overall was also very low in comparison with other EU MS, ranking dead last with 1.6% of GDP (Eurostat, 2012).

The Government has recently introduced (Law 15/2012 of 27 December 2012) additional fiscal burdens on electricity production (7% of total revenues for all plants and an additional 22% of the value of produced electricity for hydropower plants), nuclear fuel production, and nuclear fuel storage. This measure is being strongly rejected by RES-E associations in Spain as it targets RES and non-RES equally.

In addition, a plan for the coal industry has been drafted and submitted to the European Commission. This plan is intended to clarify the situation of the coal industry and the possible phase out of existing subsidies for the mining sector after 2018. However, the plan has been submitted without reaching an agreement with the coal industry.

The level of energy taxes is well below the EU average and often even below or at the minimum rates specified in the EU Energy Taxation Directive. The implicit tax rate on energy per tonne CO<sub>2</sub> is at €48, well below the EU average of €59 (OECD 2013).

Spain has no explicit carbon tax in place. Natural gas is taxed above the minimum rate for commercial use, but for transport below the minimum rate. Furthermore, heating is totally exempt from taxes on natural gas. Coal and coke are taxed at or below the minimum tax rates of €0.15 or €0.30/GJ. Electricity rates are taxed at the minimum rates of €0.50 or €1/MWh. Among the EU-15, Spain charges the lowest taxes on petrol, next to Luxembourg. Rates vary between €424 and €455/1000 litres. Diesel is taxed at the minimum rate of €331/1000 litres for transport use. This is the lowest rate applied in the EU. For other uses, diesel is taxed at €84/1000 litres, also below EU average. Reduced rates and reimbursements apply to agriculture (European Commission 2013b).

Vehicle taxes are near the EU average but only partly take into account CO<sub>2</sub> emissions. A registration tax is levied, based on the car value and CO<sub>2</sub> emissions. The rates are near the EU average. The ownership tax for passenger cars is based on engine rating, for commercial vehicles on payload, and for buses and coaches on number of seats. Higher rates are applied in Madrid. However, the rates are generally very low, especially when compared to other EU-15 MS. A distance-based road use charge is applied on specific parts of the road network. These rates are high compared to other toll systems (ACEA 2012; CE Delft 2012).

### **Energy Efficiency**

The energy intensity of the Spanish economy was the 6<sup>th</sup> lowest in the EU in 2010 and declined considerably since 2005. Meanwhile, final energy consumption in 2010 was similar to the 2001-2005 average. However, energy consumption had increased in the years preceding the global economic crisis. Industrial energy consumption had decreased before the crisis hit, leaving the transportation, residential, and service sectors responsible for the increasing energy use after 2005, which then levelled off due to the crisis (Eurostat 2013).

In the building sector, measures are being drafted in terms of certification for energy efficiency, relating to establishing a procedure for obtaining such certification. No public information is currently available as regards the current version of this act.

Regional policies appear to be quite focused on energy efficiency albeit in different forms. The responsible authorities of Madrid, Andalucía and Valencia have all established measures supporting energy efficiency:

Madrid: The regional plans (Plan Renove de Alumbrado Exterior, Plan Renove de Calderas Individuales, Ayudas para la promoción de actuaciones de uso racional de la energía en edificios e instalaciones públicas, Plan Renove de Equipos de Aire Acondicionado) support the elimination of quicksilver-steam-based lamps and the introduction of more efficient forms of illumination; the substitution of older boilers with new gas- or GPL-powered models, provided they can cause a reduction in consumption from 20 to 100%; and the substitution of older air conditioning systems with new systems possessing a minimum A rating.

Andalucía: The regional plan (Subvenciones para el fomento del ahorro y la eficiencia energética en edificios y sus instalaciones) supports a wide array of measures, mainly related to: 1) Renovation of windows, 2) Energy-efficient lighting systems, and 3) efficient air conditioning systems.

Valencia: The regional programmes in force promote energy savings and efficiency measures for companies, buildings, the public sector, and the energy transformation sector. Specific measures (amount, supported types of actions) depend on the sector to which the single plan is directed.

### **Renewable Energy**

Spain's consumption of renewable energy as a percentage of total energy consumption increased steadily between 2005 and 2010, increasing from 8.3 to 13.8%. This represents decent progress toward the 2020 goal of 20%. The electricity sector is responsible for much of this, which saw an increase of approximately 132% between

2005 and 2010 and in 2010 boasts 33.1% of consumption from renewable sources (Eurostat 2013).

At present, there is a lack of a comprehensive support scheme for renewable energies in the electricity sector. In January 2012, the government put a moratorium on premiums for new renewable projects (Royal Decree-law 1/2012) and in February 2013 the actualisation modalities for the premiums still in force were changed, leading to lower gains for RES-E producers who were receiving the premiums (Royal Decree-law 2/2013). As mentioned above in December 2012, a tax on all electricity generation was introduced. Additionally, the subsidies for CSP plants which combine solar and gas were removed (Royal Decree-law 15/2012).

These measures aim to address the high tariff deficit that resulted from the strong growth of the renewable energy sector in Spain. As of now, therefore, new RES-E installations cannot count on a solid support scheme. Some minor schemes (e.g., tax incentives) remain; however, their level of support is not comparable to what was previously in place.

With Law 17/2012 (Ley 17/2012, de 27 de diciembre, de Presupuestos Generales del Estado para el año 2013), support to the RES installations still receiving support (i.e., who accessed it before Royal Legislative Decree 1/2012 of 27 January 2012, which suspended the pre-assignment proceedings for compensation and the block of support schemes for new RES.E installations) will be provided with 90% of the income derived from the sale of carbon emission rights.

In the heat sector, the government announced a renewable heat incentive scheme (ICAREN) in 2011 in its Renewable Energy Plan 2011-2020. Though this appears to have a quite strong potential in pushing renewable energies, no actual policy changes have taken place yet.

Regional policies for the promotion of Renewable energy sources are in place in Catalunya, Andalucía and Valencia:

Catalunya (Plan de Impulso a las Energías Renovables): This regional policy of Madrid provides financial support for RES installations such as solar thermal, PV panels, biomass, and low-temperature geothermal. The amount depends on the source and the size of the installation.

Andalucía (Orden de 4 de febrero de 2009): This plan supports a wide array of measures aiming at a more sustainable energy development model in Andalucía. Accepted measures include:

- projects for energy savings and energy efficiency
- installations of energy generators
- energy studies
- actions aimed at building and strengthening energy infrastructure.

Valencia (Programa de energías renovables y biocarburantes) This plan provides financial support for the following types of installations:

- Solar thermal
- Hybrid solar thermal-biomass
- Off-grid wind plants
- Thermal-electrical biomass
- Thermal or electric biogas
- Geothermal energy

- Mini hydro
- Biofuels

### **Energy Networks**

After long delays (signature of the agreement took place in 2008), the much-needed reinforcement of the grid extension between Spain and France is taking place. A new line is currently under construction and will double the current interconnection capacity, bringing it to 2.800 MW in 2014.

### **Transport**

Transport sector greenhouse gas emissions dropped between 2005 and 2011 in Spain, certainly resulting also from the global economic crisis, but not as quickly as overall emissions. Thus, the percentage of the total for this sector's emissions rose from 23% in 2005 to 25% in 2011 (see Table 1). Taxation of transport in Spain in 2010 netted revenues equal to 0.3% of GDP, which represents the 18<sup>th</sup> highest value in the EU (Eurostat 2012). The current vehicle taxation (Law 34/2007) is based on GHG emissions. Newly registered cars in 2011 emit on average 133.8 gCO<sub>2</sub>/km and were on average 3.5% more efficient in terms of GHG emissions than the EU average (EEA 2012e).

The government has released a Plan of incentives for efficient vehicles (PIVE), which also includes a programme for substituting older vehicles. This programme aims at accelerating the substitution of cars older than 10-12 years with vehicles with less than a year of age since their first registration. The amount granted is €1000 per car. The programme targets a total of 75,000 vehicles.

Regional incentives from various regional governments (e.g., Valencia and Catalunya) include grant subsidies of €2,000 to €7,000 for the purchase of electric, hybrid, fuel cell, CNG and LPG vehicles. In Andalucía, the incentive is maximum 70% of the investment. Catalunya also has a policy in place to provide incentives for different transport-related measures (e.g., purchase of EURO vehicles, use of alternative fuels).

### **F-Gases**

A royal decree is being drafted to support containment of emissions of fluorinated gases. In addition, the development of low-carbon projects is supported by a Carbon Fund (FES-CO<sub>2</sub>). A call for project proposals was opened in 2012 and projects are now being implemented. A new call is expected shortly.

### **Adaptation**

The National Adaptation Plan to Climate Change is in place since 2006. The second work programme, which is the latest one, was published in 2009. The latter was based on four lines of action:

1. Sectoral assessment of climate change impacts
2. Mainstreaming of climate change adaptation into sectoral legislation
3. Mobilization of key stakeholders
4. Creation of a system of indicators of climate change impacts and adaptation in Spain in every sector.

## 5 Policy progress on past CSRs

As part of the European Semester, Country Specific Recommendations (CSRs) for each MS are provided by the EU Commission in June of each year for consideration and endorsement by the European Council). The recommendations are designed to address the major challenges facing each country in relation to the targets outlined in the EU 2020 Strategy. In the following table, those CSRs that are relevant for climate change and energy that were adopted in 2012 are listed, and their progress towards their implementation is assessed.

Existing Country Specific Recommendations	Progress
Shift away from labour towards consumption and environmental taxation	Some progress in this direction may have been made introducing new taxes on the value of electricity production, nuclear fuel production, and nuclear fuel storage.

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