

## RES-e Regions

### WP 1: Regional Targets & Strategy

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**RES-e STRATEGY 2006-2007**

#### Present status & potentials

Energy represents an essential part of regional economy taking into account issues as security of supply, costs and the environmental factor, which manages to get Business competitiveness and Citizens quality of life.

Currently there are almost three plans on working in Castilla y León for the promoting of Res-e, the Wind Power Plan, the Solar Plan and another plan which is being developed, the Bioenergy Plan.

The development of Res-e technologies in Castilla y León has brought associated the launch of some Industrial and socio-economical development Plans. In this way it has to highlight Wind power as the most developed RES-e technology in the region where this kind of energy has gotten a development like in a whole country.

The future of this technology in Castilla y León seems to be a constant and steady Industrial activity.

- present policies on national & regional levels

From 1999 there is a national compromise in Spain regarding Res-e. This compromise was made official in a document known as “Plan de Fomento de las Energías Renovables en España (PFER) 2000-2010” (Plan for the promotion of Renewable Energies in Spain), which was published in December, 1999 by the Industry Minister and with the collaboration of the Instituto para la Diversificación y Ahorro de Energía (IDAE). This PFER was passed in Cabinet of Ministers.

National total capacity in 1998 and target for 2010 scenario:

Sectors:	1998 (MW)	2010 (MW)
Small Hydro Power (<10 MW)	1,510	2,230
Hydro Power (10-50 MW)	2,801	3,151
Hydro Power (>50 MW)	13,420	13,420
Wind Power	834	8,974
Biomass <sup>1</sup>	189	1,897
Biogas <sup>1</sup>		78
Solar Photovoltaic	8.7	144
Solar Thermoelectric		200
Solid residues	94	262
<b>Total RES-e generation</b>	<b>18,856</b>	<b>30,355</b>

Data from "Plan de Energías Renovables en España (PER) 2005-2010".

The Regional policy for RES is based mainly in the Management of demand, Improvement of supply, Sources diversification and in the Best use of RES-e.

It has to be highlighted the regional policy for the development of Wind power where is included:

- Elaboration of the Wind Energy Plan of Castilla y León.
- Development of rules as the Decree 189/1997, dated 26th of September, in order to regulate the authorisation procedure of wind power electricity production installation.
- Industrials Plans with investment of companies.
- Exclusive performances from General Directorate of Energy and Mines of Castilla y León, Ente Regional de la Energía de Castilla y León, Territorial Services of Industry and Environment (Environmental Assessment Area).

- potentials for RES-e in 2010

The RES contribution in Castilla y León is 21% while in the whole Spain is around 18 %.

### Wind Energy Potential:

<sup>1</sup> For 1998 data Biogas is included in Biomass

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The regional Government has established to reach 6000 MW of Wind power capacity for the 2010 scenario. It is the energy which has achieved the most developed level of the RES-e energies in the region.

Solar PV Potential:

Regarding Solar PV there are currently more than 200 MW required by investors.

Bioenergy Potential:

The Bioenergy plan is currently on tracking. The potential is being analysed

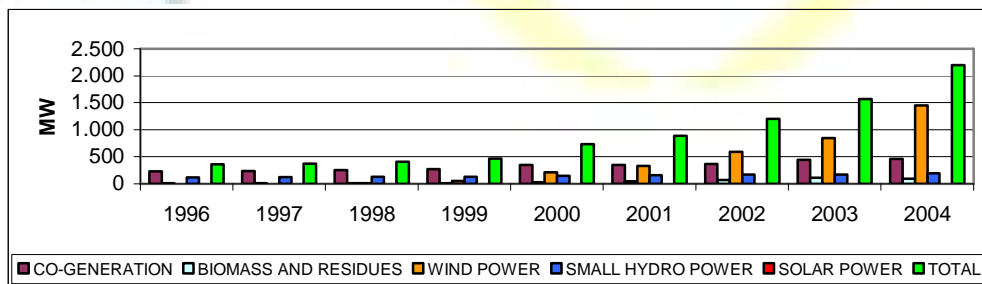
- different scenarios taking into account electricity demand development as well as different levels of support mechanisms

The scenario in the Castilla y León electricity production is the reflection of the national scenario. Spain is the second European country for wind power although its biomass policy needs to be given higher priority.

The region of Castilla y León has developed some tools, strategies and work schedule such as specific programmes in order to promote renewable energies in the region such as:

- PERCYL: 1994-2000
- Wind Power Plan: 1999-2004; 2005-2010
- Solar Plan: 2001-2006
- Biomass Plan (on track)

The success of the Res-e plans can be showed in the chart below where an increment of the installed capacity is observed after 2001. A still increment will be expected into the next years with the support of the regional strategies.



Source: EREN

## Process towards regional RES-e strategy

- RES-e strategy priorities

- The Development of 6000 wind power MW in the 2010, it is the priority for the region. This energy has the social and government support.

- To carry out all the requires of Solar Photovoltaic which achieve 200 MW.

- Finishing and implementing the Bioenergy Plan.

- stakeholder dialogue and contributions by the different groups

A survey consultation was carried out to Res-e stakeholders where they showed their viewpoints of the Res-e topic in the region, both weak and strong aspects, and a first analysis of the Res-e situation in the region was obtained.

- RES-e map

The results from the Res-e map shows that the renewable energy development in Castilla y León is being quite important compared with the National level of renewable energy standards. However there is an unequal level among the different technologies.

In order to promote and make known all the Res-e installations in the region a publication, as representative sign of the Renewable Energy electricity development in the region, was made.

- meetings and event organised

In order to achieve the Res-e targets some meetings and other events has been carried out to get an analysis of the regional Res-e situation such as Regional seminar, Planners platform meeting, Info Res-e meeting.

### Transposition report:

The conclusion from transposition report arrives that the ways of the Spanish regulation for Res-e are being acceptable by RES-e promoters in high grade.

Despite of the barriers renewable electricity generation seems to be a good option for business in the Castilla y León region.

The long term targets established in the Castilla y León region are appreciated by stakeholders as an important element of creating a stable environment for investments in renewable energy electricity.

### **Project developers Leaflet:**

From the hotline was extracted which was the RES-e technology with more number of question asked. Observing the great demand of information concerning Solar Photovoltaic the leaflet was published. The publication is about a kind of User's Guide, which aim is to give all the information about solar PV for users.

### **Res targets proposed for Castilla y León region**

- reducing energy intensity by 3% until 2007
- supplying hot-water demand in all public hospitals by solar thermal and installing photovoltaic energy in most of regional administration buildings until 2010
- reaching a share of 18 % of renewable energy in primary energy consumption and a share of 32% in electricity production by RES in 2010 (excluding large hydro power)

### **Measures & time-table**

Some measures to being taken on REGIONAL level to achieve Res-e targets are the Special regime Real Decree, Wind power Regional Decree, Subventions, Publication Res-e, PV brochure, hotline.

## Costs & benefits

Employment estimation in Castilla y León from Renewable energies :

TIPOLOGÍA	GLOBAL DE EE.RR		
	Nº Empresas	Inversión (€)	Empleo
Ingeniería, gestión y promoción	166	8.760.000	320
Fabricación de equipos	33	77.732.000	1.277
Instalación, montaje y obra civil	203	15.175.000	643
Operación, mantenimiento y explotación	188	6.035.900	311
	<b>467</b>	<b>107.702.900</b>	<b>2.551</b>

### Notas:

\* Las inversiones de empresas de promoción, no incluyen el coste de las instalaciones de generación.

\* Las empresas de explotación y montaje en energía solar se consideran las mismas

\* Por duplicidad en las ingenierías y promotoras de EO, MH y BM, su número total se ha reducido (25%) sobre su suma por separado.

## Conclusions

The Regional Strategy target in Castilla y León is up to 32 % of the electricity production from renewable energy sources by 2010 (not including Big Hydro electricity production).

The first step in the adoption of an official compromise regarding RES-e in Castilla y León was to sign, by the *Deputy Vicepresident & Economy and Employment Regional Minister of Junta de Castilla y León*, from the regional government, the Declaration of European Regions for Energy Efficiency and Renewable Energy Sources in Wels, during the WORLD SUSTAINABLE ENERGY DAYS in March, 2006.