

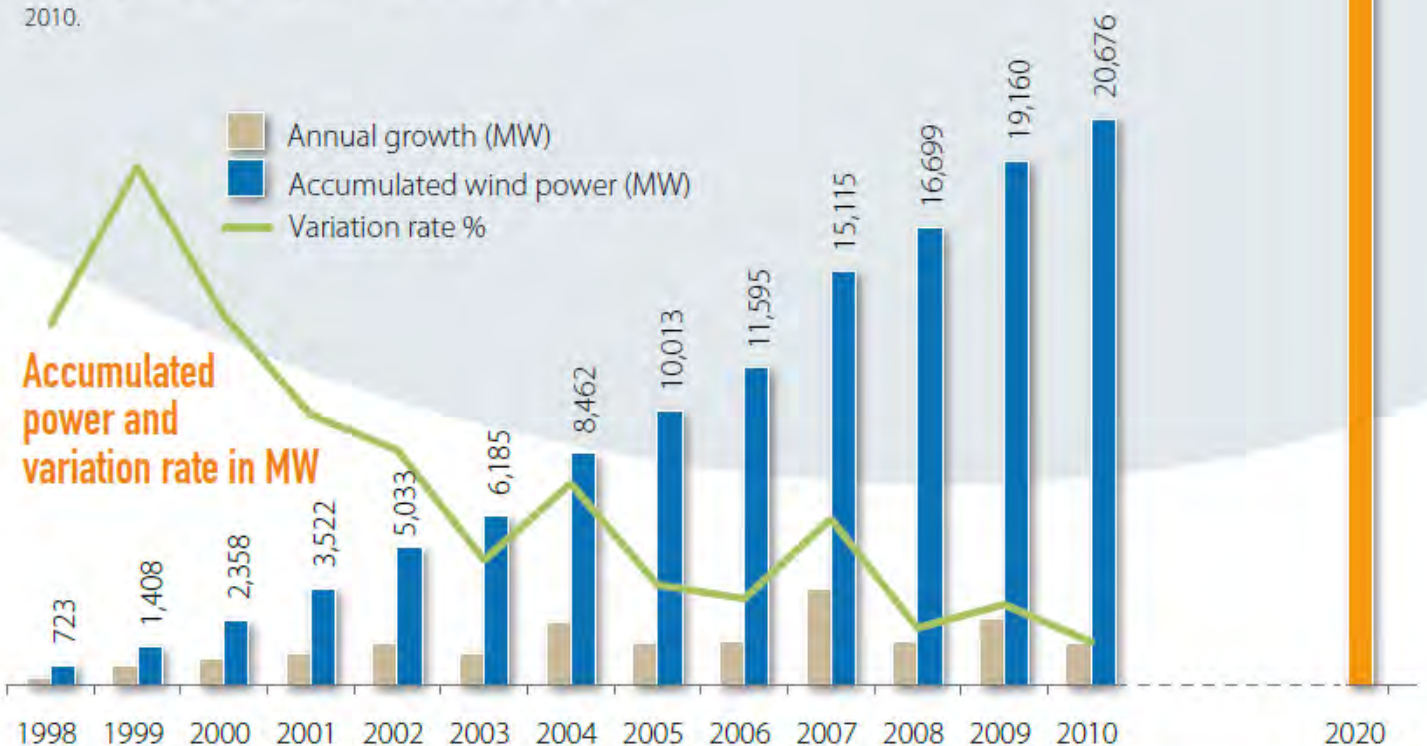
Wind Power Observatory 2011

Wind Energy meets the REP 2005-2010 and now faces the 35,000 MW challenge by 2020

The Spanish wind energy sector has exactly met the Renewable Energies Plan (REP 2005-2010). And it now faces a new challenge: to know how to reach the 38,000 MW by 2020 estimated by the Government in the NREAP (National Renewable Energy Action Plan) -35,000 MW onshore and 3,000 MW of offshore wind-.

Although 2010 was a particularly difficult year for the sector, given the slowdown in its growth rate, a total of 1,516 MW were installed in Spain (+8% over the accumulated capacity of the previous year), according to data compiled by the Wind Power Observatory of the Spanish Wind Energy Association. The total installed capacity by the end of 2010 in Spain was 20,676 MW, a figure higher than the 20,155 MW set in the REP 2005-2010.

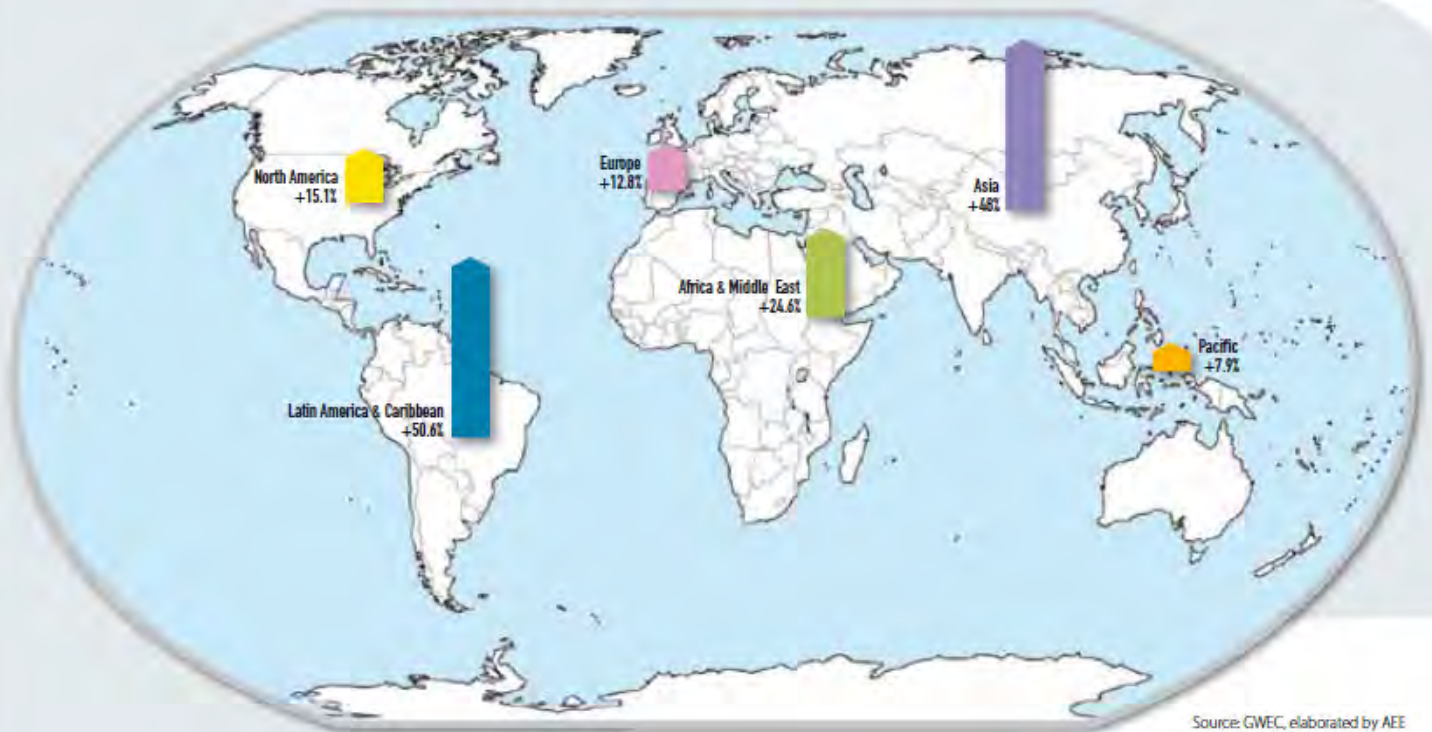
This slowdown is due to the impact caused by the creation of the Pre Allocation Register in mid-2009 and the regulatory uncertainty that has accompanied 2010. As AEE had already warned, these two factors, together with the effects of the crisis, meant a decrease in the installation of new power. Also, there is a new unknown factor for the future: the regulatory framework that will establish the rules of the game from 2013. This is very important because, so far, there are less than 3,000 MW remaining for 2011 and 2012 in the Register. The remuneration the facilities will perceive as well as the system to be used are unknown from 2013, which holds back the installation of new farms.



Emerging countries speed up wind energy development

China and India have sped up in recent years and their willingness to become a reference in the installation of wind turbines keeps growing extremely quick. In fact, China already leads the ranking of accumulated power after adding another 16,500 MW (provisional data), reaching a total of 42,287 MW. The United States follow at a short distance with more than 5,000 MW installed in 2010 (half of

what was installed in 2009). The United States have already gone over 40,000 MW of accumulated power. Germany, Spain and India complete the top five with 27,214 MW, 20,676 MW and 13,065 MW respectively, although the order is reversed if we look at the power installed in 2010: India added 2,139 MW; Spain, 1,516 MW and Germany, 1,493 MW.



Source: GWEC, elaborated by AEE

Installed power by countries

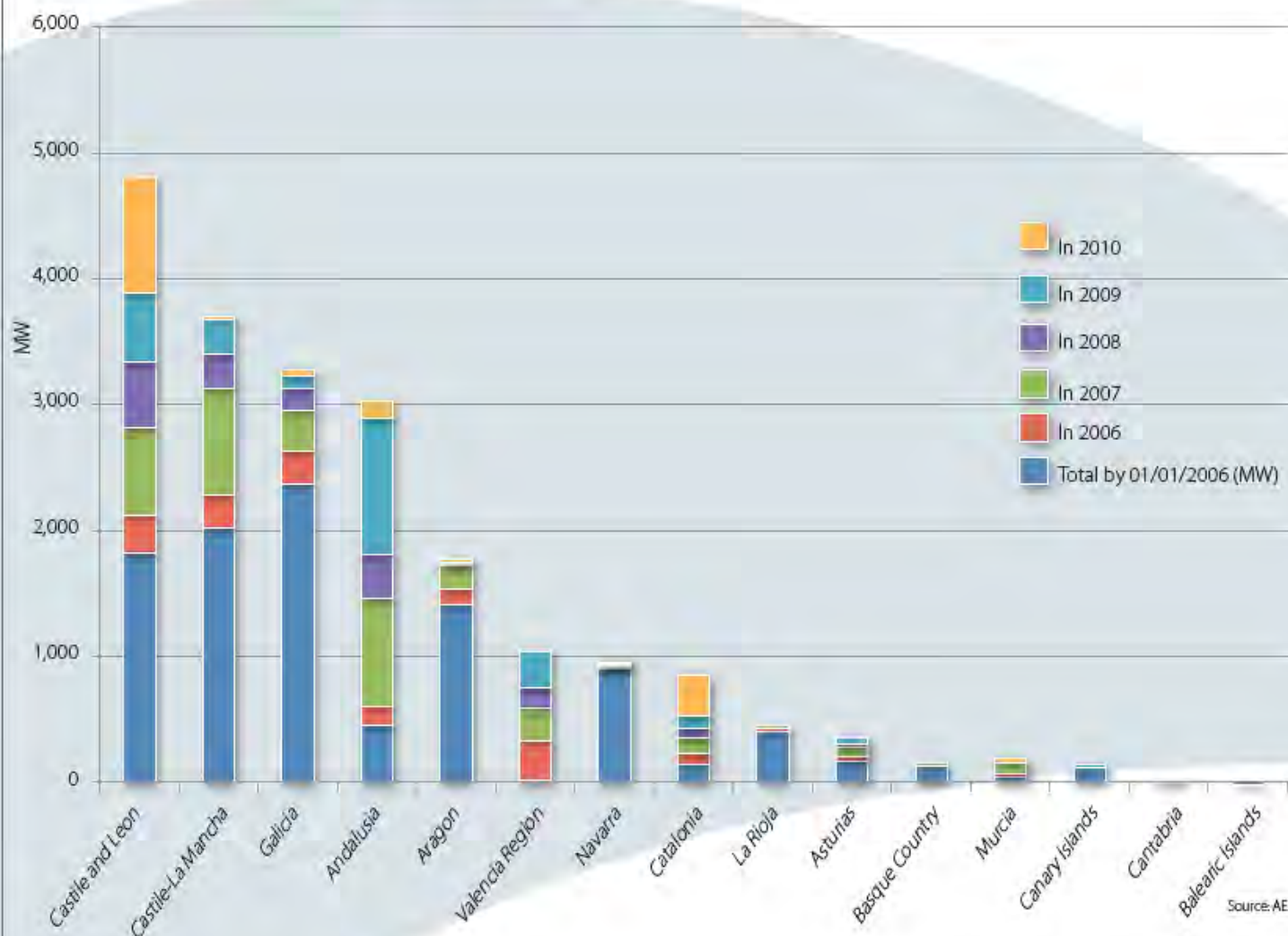
Country	Accumulated in 2009	Installed in 2010	Accumulated in 2010	Country	Accumulated in 2009	Installed in 2010	Accumulated in 2010
CHINA	25,805	16,500*	42,287	PORTUGAL	3,357	345	3,702
US	35,086	5,115	40,180	JAPAN	2,085	221	2,304
GERMANY	25,777	1,493	27,214	THE NETHERLANDS	2,223	15*	2,237
SPAIN	19,160	1,516	20,676	SWEDEN	1,560	603	2,163
INDIA	10,926	2,139	13,065	AUSTRALIA	1,712	167	1,880
ITALY	4,849	948	5,797	IRELAND	1,310	118	1,428
FRANCE	4,574	1,086	5,660	TURKEY	801	528	1,329
UK	4,245	962	5,204	GREECE	1,086	123	1,208
CANADA	3,319	690	4,009	POLAND	725	382	1,107
DENMARK	3,465	327*	3,752	AUSTRIA	995	16	1,011

* Provisional data

Source: GWEC, elaborated by AEE

Castile and Leon reaffirms its leadership

Installed power by regions by December 31, 2010



Source: AEE

Castile and Leon has become the region with the most installed capacity and, if it keeps the current trend, it seems it will not abandon this first place easily. During 2010, it added 917 MW (60.4% of all new installed capacity in Spain in 2010), so it has already accumulated more than 4,800 MW. The other two regions with the highest installed capacity in 2010 were Catalonia (326.87 MW) and Andalusia (139.41 MW).

The second and third places in the ranking of accumulated power are for Castile-La Mancha (which just installed 6 MW in 2010 adding up to 3,709 MW) and Galicia (which added new

54.80 MW making it a total of 3,290 MW). On the other hand, the Balearic Islands, Asturias, La Rioja, Basque Country and the Valencia region were the regions that did not install a single MW in 2010.

It is also important to remember that in 2010, regions such as Andalusia, Aragon, Canary Islands, Cantabria, Catalonia, Extremadura and Galicia carried out tenders for several thousands of MW of new power for which administrative authorization is required. So far, and in the absence of a regulatory framework from 2013, it is unknown when this power will be installed.

Development: a stable distribution

There has been little change in the ranking by developers. Last year's three leading companies keep their leadership in the same order. Iberdrola Renovables, Acciona Energía and EDPR establish themselves in their positions with 5,168.5 MW, 4,037 MW and 1,863 MW, respectively.

However, there have been changes in terms of new capacity installed in 2010. Iberdrola Renovables has installed the most with nearly 290 new MW, followed by EDPR, with 250 MW, the third company with 233 MW is Vapat that has entered the ranking registering a market share above 1%.

Other developers that installed new capacity in 2010 were: Gamesa Energía (98 MW), Enel Green Power Spain (83 MW), Eufér (53 MW), Acciona Energía (40 MW), Fersa (38 MW), Eolia Renovables (36 MW), Eyra (35 MW), Gecal (31 MW), Elecdey (30 MW), E. ON Renovables (15 MW) and rest of companies (287 MW).

AEE takes the final operational act as the reference to calculate the installed power, which, in some occasions, does not match up with the data published by developers.

The total figure by developers is linked to the attributed power according to their shareholding percentage in wind farms.

(*) Renomar has a total of 490.5 MW. Acciona owns 50% of this company, so the table only reflects the 50% owned by Medwind.

Developer	Total power by 31/12/2010 (MW)	New power in 2010 (MW)	Variation rate 2010/09 (%)	Market share (%)
IBERDROLA RENOVABLES	5,168.50	289.22	5.9%	25.0%
ACCIONA ENERGÍA	4,036.82	40.00	1.0%	19.5%
EDPR	1,862.92	249.78	15.5%	9.0%
EUFER	913.78	52.57	6.1%	4.4%
ENEL GREEN				
POWER ESPAÑA	807.51	83.00	11.5%	3.9%
EyRA	774.26	34.88	4.7%	3.7%
OLIVENTO, S.L.	421.79	0.00	0.0%	2.0%
ENERFIN	404.54	0.00	0.0%	2.0%
AGRUPACIÓ DE ENERGÍAS RENOVABLES, S.A. (AERSA)	390.69	0.00	0.0%	1.9%
GAS NATURAL	380.14	0.00	0.0%	1.8%
EOLIA RENOVABLES	367.74	36.00	10.9%	1.8%
E. ON Renovables	321.33	14.58	4.8%	1.6%
GAMESA ENERGÍA	280.95	98.00	53.6%	1.4%
MEDWIND (*)	245.25	0.00	0.0%	1.2%
MOLINOS DEL EBRO	235.16	0.00	0.0%	1.1%
VAPAT	232.52	232.52		1.1%
GECAL, S.A.	231.06	31.31	15.7%	1.1%
IBEREÓLICA	158.90	0.00	0.0%	0.8%
EÓLICA DE NAVARRA	149.11	0.00	0.0%	0.7%
FERSA	141.88	37.80	36.3%	0.7%
ELECDEY	140.09	29.70	26.9%	0.7%
RENOVALIA	105.00	0.00	0.0%	0.5%
OTHERS	2,906.10	286.59	10.9%	14.1%
TOTAL	20,676.04	1,515.95	8%	100%

Source: AEE

Gamesa and Vestas are the top two manufacturers

Gamesa and Vestas, the world's leading wind turbine manufacturers have consolidated as the two major manufacturers also in Spain. Gamesa led the installation of wind turbines in 2010, with 760 MW in place and it already has a total of 11,109 MW installed (including data of its subsidiary MADE) in the Spanish territory, a 53.72% of the market share. Vestas was not far behind and installed 500 MW, adding up to 3,529 MW in total and achieving a 17.1% of the market share.

Other companies that installed their turbines were Alstom Wind (141.78 MW, adding up to 1,559.85 MW – placing itself in third position in terms of accumulated power ahead of Acciona-); GE (94.50 MW); Fuhrlander, breaking into the Spanish market (12 MW) and M-Torres (6.60 MW).

Developer	Total power by 31/12/2010 (MW)	New power in 2010 (MW)	Variation rate 2010/09 (%)	Market share (%)
GAMESA	11,108.07	760.67	7.35%	53.72%
VESTAS	3,528.72	500.40	16.52%	17.07%
ALSTOM-WIND	1,559.85	141.78	10.00%	7.54%
ACCIONA WIND POWER	1,455.15	0.00	0.00%	7.04%
GE	1,203.20	94.50	8.52%	5.82%
SIEMENS	727.10	0.00	0.00%	3.52%
ENERCON	484.60	0.00	0.00%	2.34%
SUZLON	218.00	0.00	0.00%	1.05%
NORDEX	135.18	0.00	0.00%	0.65%
DESA	101.02	0.00	0.00%	0.49%
LAGERWEY	37.50	0.00	0.00%	0.18%
M-TORRES	36.90	6.60	21.78%	0.18%
KENETECH	36.90	0.00	0.00%	0.18%
REPOWER	25.00	0.00	0.00%	0.12%
FUHLRLANDER	12.00	12.00		0.06%
OTHERS	6.86	0.00	0.00%	0.03%
TOTAL	20,676.04	1,515.95	7.91%	100.00%

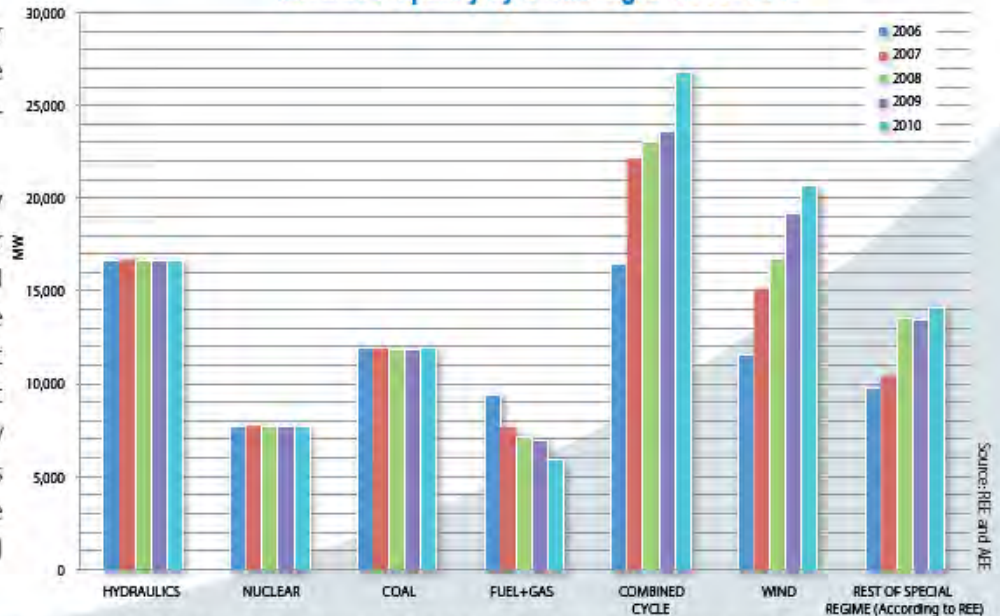
Source: AEE

Wind energy consolidates as the second technology in terms of installed power

Installed capacity by technologies 2006-2010

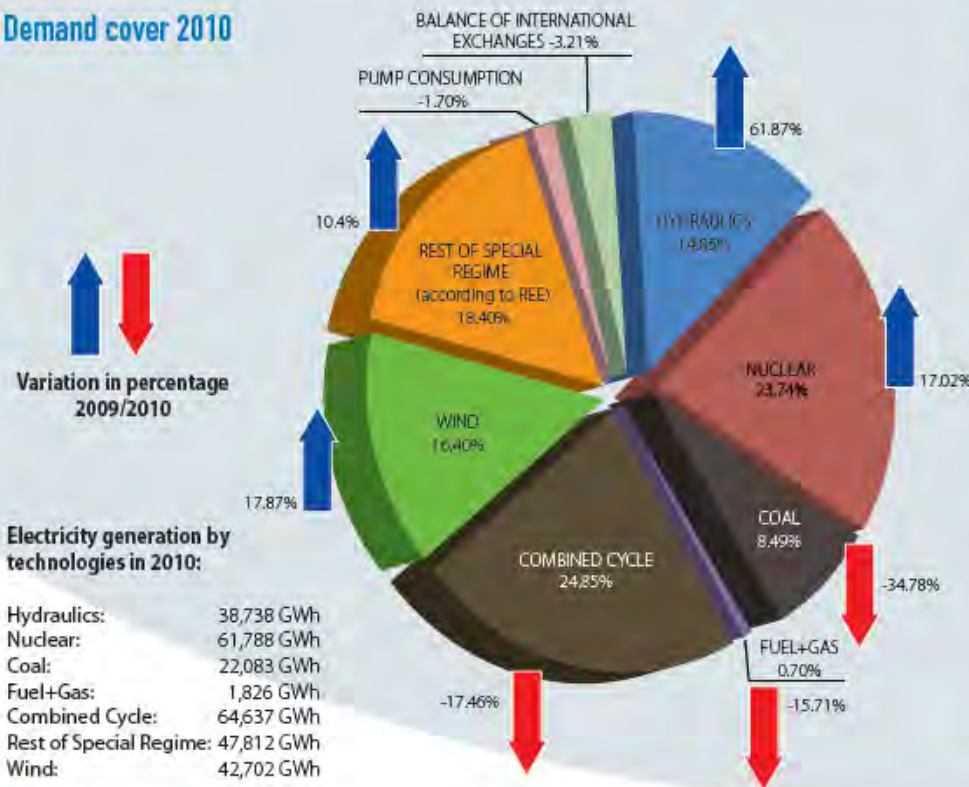
Wind energy has been occupying for some time a considerable place in the electricity mix, but its role now is **indisputable and indispensable**.

Nowadays, it is the **second technology** that has installed the most power (20,676 MW), only behind combined cycle (26,844 MW). In fact, they are the two powers that have grown the most in 2010: combined cycle installed just over 3,000 new MW, while wind energy installed more than 1,500 MW. As already mentioned, the rest of the technologies covered by the Special Regime also continue to grow.



On the other hand, conventional technologies such as hydraulics, nuclear and coal have remained the same over the past five years, while the fuel+gas continue to close facilities.

Demand cover 2010



Wind generation covers 16.4% of demand

Apart from growing in terms of installed power during 2010, wind power covered 16.4% of the electricity demand in Spain (according to Red Eléctrica de España - TSO - data), exceeding the 14.39% achieved during the previous year. This allowed the technology to consolidate as the third largest contributor to the system, after combined cycle and nuclear.

In percentage terms, wind energy increased by 18%, the second greatest increase, only behind hydraulics, which was the largest increase over the previous year (+62.35%).

Wind energy milestones

Wind marked several milestones in its contribution to the demand:

- December 30, 2009: wind energy covered 54.7% of demand in the early hours of the morning.
- November 9, 2010: 14,962 MW of simultaneous wind generation (at 14h46).
- November 9, 2010: the maximum hourly production was 14,752 MWh (between 14h00 and 15h00).
- November 9, 2010: the maximum daily production was 315,259 MWh.

Wind energy provides more than it receives (2009 Data) *

Remuneration:

- In 2009, **premiums** for wind energy accounted for **9.8%** of the fixed costs of the Spanish electric system while wind covered **14.4%** of Spanish electricity demand.
- In 2009, **premiums** for wind power accounted for **1.3 Euros per month** to each Spanish household: 15.6 € per year.
- In 2009, wind energy reduced by **3.4€/MWh** the cost of the Spanish electric market: in the end, the annual average was **36.96 €/MWh**, it would have been **40.36 €/ MWh** without wind energy.
- The total cost of electricity would have been of **766 million Euros more** without the contribution of wind energy to the Spanish electric market (the total energy consumed was 225,503 GWh, according to the CNE-National Energy Commission-).

Returns:

- The wind energy industry contributed **3,207 million** to GDP in 2009, 15.7% less than the previous year.
- Wind energy accounts for **0.34% of GDP**, compared to 0.39% in 2008.
- The sector **employed**, directly and indirectly, **35,719 people** at the end of 2009, representing a reduction of more than 5,000 jobs over the previous year.
- In 2009, the **savings** achieved by replacing fossil fuel imports amounted to **1,541 million Euros**.
- It also saved **270 million** as a result of the avoided emissions of greenhouse gases.
- In addition, the sector **exported** in the amount of **2,104 million** last year.
- Wind energy contributed **213 million** to the fiscal balance in 2009.
- The sector invested **156 million** in R & D.

* Data from the Macroeconomic study on the Impact of Wind Energy in Spain in 2009. AEE-Deloitte, published in November 2010.

Remuneration received in 2010

Arithmetic market price: 37.01€/MWh
 RD 661/2007 average remuneration: 76.90€/MWh
 RD 661/2007 regulated tariff: 77.47€/MWh
 RD 436/2004 average remuneration (1st TD RD 661/2007): 72.42€/MWh

Remuneration forecast for 2011

