



Press release
July 2006

Small Hydraulic Barometer 2006

With more than 11 600 MW installed in 2005, the small hydraulic power sector, defined as installations with capacities of less than 10 MW, is an integral part of the EU electricity production system. However, the sector has to face a double, apparently contradictory, problem: that of reconciling requirements of productivity while at the same time maintaining the good ecological quality of the water used. EurObserv'ER presents this sector's current state of development in its Barometer published in **issue number 174** of *Systèmes Solaires* magazine.

11 643.5 MW in 2005

The new investigations that we carried out with energy agencies, power grid managements and national experts has led to a re-evaluation of our estimate of small hydraulic power installed capacity in Europe (defined as being strictly lower than 10 MW) at 11 534.6 MW in 2004. For 2005, we estimate total European installed capacity at 11 643.5 MW, i.e. an additional 108.9 MW.

Italy with 2 592 MW and France with 2 040 MW are the two countries best equipped in this field. If Spain, Germany, Austria and Sweden are added on, these six countries alone then represent 84.3% of EU installed capacity.

Table 1: Total small hydraulic capacity (<10 MW) installed in the European Union countries (in MW)

Country	2004	2005*	growth in %
Italy	2591,9	2591,9	0,0%
France	2040,0	2040,0	0,0%
Spain	1748,0	1788,0	2,3%
Germany	1564,0	1584,0	1,3%
Austria	994,0	994,0	0,0%
Sweden	823,0	823,0	0,0%
Poland	285,0	318,0	11,6%
Finland	306,0	306,0	0,0%
Czech Rep.	271,7	276,7	1,8%
Portugal	267,0	267,0	0,0%
United Kingdom	184,0	184,0	0,0%
Slovenia	142,9	143,3	0,3%
Greece	82,0	89,0	8,5%
Slovak Rep.	70,0	70,0	0,0%
Belgium	56,5	58,0	2,7%
Latvia	26,2	25,0	-4,6%
Luxemburg	20,4	20,5	0,5%
Ireland	19,0	19,0	0,0%
Lithuania	18,7	18,7	0,0%
Denmark	11,0	11,0	0,0%
Hungary	9,0	9,0	0,0%
Estonia	3,9	7,0	79,5%
Netherlands	0,4	0,4	0,0%
Cyprus	0,0	0,0	
Malta	0,0	0,0	
Total E.U.	11534,6	11643,5	0,9%

*Estimation

Source : EurObserv'ER 2006.

Note: At the beginning of July 2006, data about capacity installed in 2005 was not available for the following countries: Italy, France, Sweden, Finland, United Kingdom, Ireland and Lithuania. Instead, the 2004 figures were used.

International industry leader

The European Union has the chance of having the number one industry in the world concerning small hydraulic power. The European industrial sector owes part of this supremacy to the importance of the European market whose standards are continually increasing, whether this be in terms of productivity or of environmental impact. Thanks to this know-how, Europe has been able to export production to countries with high potentials, as in Asia and Central America. The European Small Hydraulic Association (ESHA) estimates this turnover at between 150 and 180 million euros, with the sector employing nearly 20 000 persons. There are around fifty hydraulic turbine manufacturers in Europe, including some subsidiaries of multinationals like Alstom Power Hydro, VA Tech/Andritz and Voith Siemens.

Table 2: Examples of representative firms of the small hydraulic industry

Company	Country	Turnover 2005 (in thousand euros)	Employment (2005)	Types of turbines or Plants
Mavel a.s.	Czech Republic	10 500	165	Plants up to 25 MW
Hydrolink s.r.o.	Czech Republic	12 800	75	Plants up to 10 MW
Gugler	Austria	7 500	53	Turbines from 1 kW to 10 MW
THEE	France	2 500	20	Plants from 10 to 400 kW
Ossberger	Germany	n.c.	n.c.	Turbines from 1 kW to 2 MW
ALSTOM Power Hydro	France/UK	n.c.	n.c.	Turbines from 5 to 30 MW
VA Tech Hydro/Andritz	Austria	n.c.	n.c.	Turbines from 50 kW to 15 MW
Voith Siemens Hydro	Germany	n.c.	n.c.	Turbines from 100 kW to 10 MW

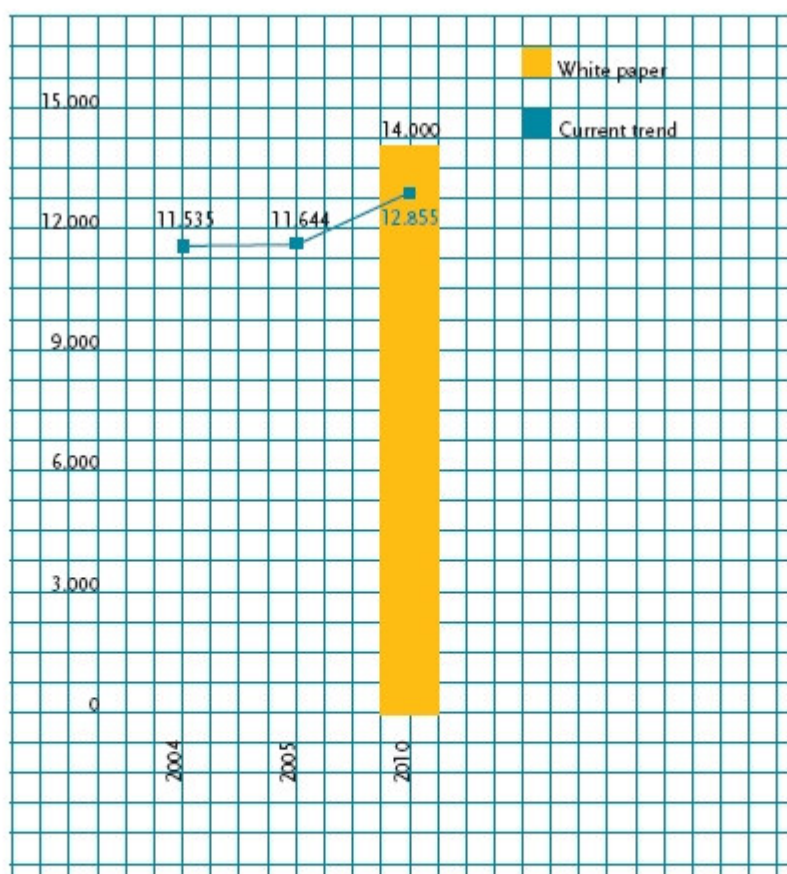
n.c.: not communicated

Source : *EurObserver* 2006.

What perspectives for 2010 ?

The situation of small hydroelectric power continues to be contrasted between countries that are reinforcing their assistance to the sector (Spain, Italy and France) and those, which, on the contrary, want to call their support systems into question (Austria and Sweden). Even though the success of the targets as stated by the member States still seems uncertain considering the growth rate observed in 2005, it seems probable that the installation rate will be on the rise over the next few years. Our forecast, which is based on a 2% average annual growth rate, should bring EU installed capacity up to approximately 12 855 MW in 2010 vs. the White Paper target of 14 000 MW. The ESHA estimates that this European objective will only be reached in 2015 with a forecast of 14 040 MW, including 1 040 MW found in the ten new member countries. But considerable work have to be done in order to reduce administrative and environmental barriers to ensure this progression.

Graph 1: Comparison of the current trend with the White Paper objectives (in MW)



Source : EurObserv'ER 2006.

EurObserv'ER

EurObserv'ER is a consortium composed of five European organisations devoted to the promotion of renewable energies within the European Union.

These five organisations are:

- **Observ'ER**, the Observatory of renewable energies (Paris, France);
- **Eurec Agency**, the European association of renewable energy research centers (Brussels, Belgium);
- **Eurofores**, European forum for renewable energy sources (Brussels, Belgium);
- **Erec**, The European Renewable Energy Council (Brussels, Belgium);
- **Jozef Stefan Institute**, Energy Efficiency Center (Ljubljana, Slovenia);

The EurObserv'ER barometer

The **EurObserv'ER barometer** consists of regular publication in the European press of indicators reflecting the current dynamics of renewable energy sectors (solar, wind, hydraulic, geothermal and biomass) worldwide and within the European Union.

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