

Important notice: this report has been submitted in the language of the Member State, which is the sole authentic version. Translation into the English language is being provided for information purposes only. The European Commission does not guarantee the accuracy of the data or information provided in the translation, nor does it accept responsibility for any use made thereof.

Second report on progress towards achieving the indicative targets for electricity production
from renewable energy sources in Portugal
(2004)

November 2005

Second report on progress towards achieving the indicative targets for electricity production from renewable energy sources in Portugal

Under Article 3(3) of Directive 2001/77/EC of 27 September 2001, the Member States must publish, every two years, a report which includes an analysis of success in meeting the national indicative targets for electricity production from renewable energy sources.

The second report, which is now published, shows the trend in electricity production in power plants producing electricity from RES, sets out the relevant legal framework for the promotion of RES and outlines prospects for future development until 2010.

Electricity production in power plants from RES

The following table shows the historical development of electricity produced from renewable sources.

Units: GWh	1997	1998	1999	2000	2001	2002	2003	2004
Total hydro - corrected (HPI=1)*	13,175	15,322	13,7	13,237	14,744	13,254	14,728	15,140
Wind	39	88	122	168	256	362	496	816
Biomass (with cogeneration)	1,035	1,021	1,075	1,03	1,065	1,166	1,069	1,206
Biomass (without cogeneration)			3.2	7.1	21.4	41.9	42.9	52
Municipal solid waste			157	514	511	521	549	524
Biogas	1.3	0.6	1.1	1.6	2.2	2.5	2.3	14
Photovoltaic	0.7	0.8	1.1	1.4	1.6	1.8	2.6	3.0
Geothermal	51.0	58.0	80.0	80.0	105.0	96.0	90.0	84.0
Wave/tidal								
Total	14,302	16,490	15,140	15,039	16,705	15,446	16,981	17,839
Gross prod. and import balance (GWh)	37,106	39,258	42,427	44,695	46,748	48,006	49,646	51,586
% of renewable energy (Directive)	38.5%	42.0%	35.7%	33.6%	35.7%	32.2%	34.2%	34.6%
Precipitation								
Total hydro - actual	13,175	13,054	7,631	11,715	14,375	8,257	16,054	10,147
HPI (base year Directive – 1997)	1.00	0.85	0.56	0.89	0.98	0.62	1.09	0.66

* Precipitation has a significant effect on the results obtained in the production of electricity from RES. For this reason, the hydraulic productivity indices (HPI) for the base year (1997) are taken as the reference value.

In Portugal, rainfall is, beyond doubt, the climatic factor with the greatest impact on electricity production from RES, given the large share of hydroelectricity production (in 2004 it represented 20% of the total gross production and import balance and 80% of the total electricity production from RES).

The growth of windpower should be highlighted, resulting from the entry into service of new wind farms in 2003 and 2004. It should be noted that in 2004 Portugal had the highest growth rate in Europe for the installation of wind farms, having exceeded, in September 2005, 900 MW of installed capacity.

Legal framework for the promotion of RES

In 2001 legislation was published which created attractive and differentiated payments for renewable technology and defined a system for licensing and connection to the grid which aims to facilitate the introduction of this technology. Indeed, based on the 2001 legislation, licenses increased from about 100 MW/year to 700 MW/year and construction time decreased by four years down to two years.

In 2005, Decree-Law No 33-A/2005 reviewed these tariff conditions. It maintained strong incentives for this technology and defined mechanisms to encourage speedy entry into service (tariffs decreasing until entry into service, deadlines for licensing and entry into service). There is currently about 1 500 MW of wind capacity under construction, which should enter into service during 2006.

The Support Measure for the Use of Energy Potential and Rationalisation of Consumption (MAPE), in the context of the Third Community Support Framework, gives financial incentives for investment projects in the area of the production of electricity and thermal energy from renewable energy sources. In the period 2001/2004, 84 investment projects were approved in this context, with a total capacity of 725.66 MW. The financial incentive given was EUR 171.98 million, corresponding to a total investment of EUR 866.75 million.

Future development and forecast for 2010

The table on the following page shows not only the strong development between 1997 and 2005, with the installation of an additional 1 500 MW of electricity production from RES, but also the expected development by 2010 based on current licensing procedures alone (not including the call for tenders recently launched).

This year, Portugal extended its windpower targets to 5 100 MW, and also launched a call for tenders to award capacity for linking new wind farms to the SEP grid. These measures should mean that Portugal can exceed the targets provided for in the Directive, since there is a strong convergence between the forecasts and the results already achieved in 2004.

Thus, at the end of 2006 Portugal hopes to exceed the 7 500 MW of installed capacity based on RES, maintaining the level of 34% of electricity produced from RES recorded in 2004. From 2008, convergence with the targets will increase, and Portugal is expected to achieve 37% of total electricity production. In 2010, with more than 10 000 MW of installed capacity, Portugal should exceed the 39% laid down in Directive 2001/77/EC.

Current installed capacity in power plants producing electricity from RES and forecast for 2010 in mainland Portugal

	Estimate of MW RES for 2006					Estimate of MW RES for 2008			Conservative estimate of MW RES for 2010		
	MW connected in 1997	a) Connected (Sept. 2005)	b) under construction	Total MW for 2006 (c)=(a)+(b)	% of gross production 2006	d) being licensed - with connection to grid	Total MW for 2008 (e)=(c)+(d)	% of gross production 2008	f) Connection to grid under evaluation	Total MW for 2010 (g)=(e)+(f)	% of gross production 2010
Large-scale plants	4,007	4,476	-	4,476	22.4%	-	4,476	20.7%	922	5,398	21.2%
Small hydroelectric power plants	205	267	144	411	1.6%	9	420	1.8%	180	600	2.0%
Wind	22	905	1,489	2,394	6.9%	1,011	3,405	11.2%	-	3,405	12.2%
Biomass (with cogeneration)	350	357	4	361	2.1%	1	362	1.9%	-	362	1.8%
Biomass (without cogeneration)	-	12	-	12	0.1%	49	61	0.4%	93	154	1.0%
Municipal solid waste	-	88	-	88	0.9%	-	88	0.9%	-	88	0.8%
Biogas	1	7	19	26	0.1%	-	26	0.1%	25	51	0.2%
Photovoltaic	0.5	2	78	80	0.1%	20	100	0.2%	26	126	0.3%
Wave/innovation	-	-	4	4	0.0%	-	4	0.0%	26	30	0.0%
Total	4,586	6,114	1,738	7,852	34.2%	1,090	8,942	37.1%	1,272	10,214	39.4%

Note: Mainland Portugal; An increase in gross production of 4% per year until 2010 is assumed.

MW RES estimate in 2010 based on licensing procedures. It does not include the new call for tenders recently launched for wind farms which extends the targets to 5 100 MW.

It was assumed in each year that the new capacity installed would produce only 50% of its potential in the cross year.