Solar Thermal Markets in Europe

Trends and Market Statistics 2007

June 2008

ESTIF
European Solar Thermal Industry Federation

Mixed Developments on the European Market in 2007

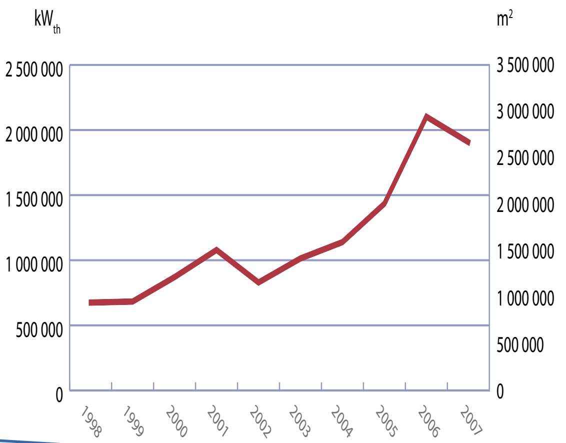
Solar thermal encountered mixed developments in Europe in 2007. The total market for glazed collectors in the 27 EU Member States and Switzerland decreased by 9% to 1,9 GW_{th} of new capacity (2,7 million m^2 of collector area). The total capacity in operation at the end of 2007 reached 15,4 GW_{th} (22 million m^2 of collector area). However, the various national markets developed quite differently from one another.
In many countries demand for solar heating and cooling solutions increased at double-digit rates: In Italy and the Netherlands, growth rates jumped across the 30% mark. And some markets virtually exploded: Slovenia saw a 74% increase in capacity over the previous year, and the Irish market even tripled in volume.
But in the same year, Germany saw a huge decline of its domestic solar thermal market: 37% less than in 2006. Austria also showed a slight loss of -4%. Several factors, for example the increase of the VAT rate in January 2007, contributed to the decline in Germany.

Two factors stand out however, as they are important to understand our market. Firstly, we have to realise that we are selling heating and cooling systems. This means that when the overall demand for such systems declines, our market is also affected. As most customers purchase a solar thermal system when they are changing their heating system, the strong decline of the heating equipment market had a negative effect on our own sales.
Another factor was even more surprising to many of us: Following the very public discussion on climate change issues, many consumers wanted to change their energy usage. But this did not show in our sales. What we slowly learned was, that consumers were overwhelmed with the many options offered to reduce energy demand, and that they need more time to decide.
This makes the immediate market development in Europe difficult to forecast: When will consumers be again confident enough to choose their next heating system? Will the rising oil price drive consumers to renewable energy solutions – or will it reduce their disposable income to the point where they stop investing into long-term goods?
The long term forecast is much easier – and very positive: The EU is about to agree on a Renewable Energy Directive, which will – for the first time – fully cover also the heating and cooling sector.
At the same time, even the most conservative financial institutions and renowned economic research institutes have agreed, that high oil prices are here to stay because global demand keeps rising and we are indeed reaching the peak of worldwide oil production.
Climate change and the now very visible finiteness of fossil fuels have put an end to the old solutions of energy supply. Like consumers, policy makers and corporate managers are struggling to find the answers to the new questions. But the solar thermal sector has already formulated a clear vision: In 2030 the 100% solar heated house shall be the building standard. We believe that it is only a question of time, until this vision becomes reality.

Gerhard Rabensteiner
President of ESTIF

EU MARKET

Solar Thermal Market in EU27+ CH



After four years of very dynamic growth, the European solar thermal market decreased in sales in 2007. The main reason for this lies in the strong market reduction in Europe's largest solar thermal market, Germany. Many other markets continued to enjoy double-digit growth rates, leading to a heterogeneous picture of the European market development.

Overall the market (newly installed capacity) in the EU and Switzerland decreased by more than 9% to 1,92 GW_{th} representing a collector area of 2,74 million m^2.
The total solar thermal capacity in operation in the EU and Switzerland reached 15,4 GW_{th} at the end of 2008.

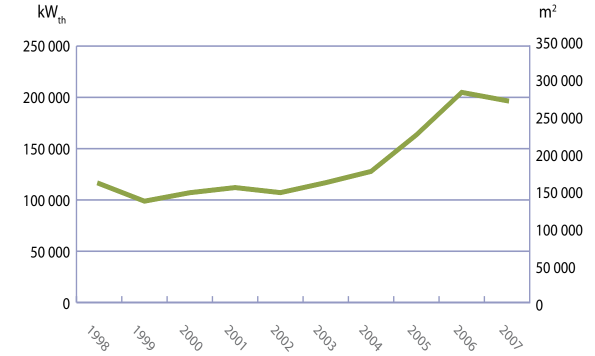
ESTIF expects a continuation of the considerable growth in many countries, especially around the Mediterranean. The first months of 2008 have seen also a return to growth in Germany and Austria.

KEY NATIONAL MARKETS - Glazed Collectors

Germany

Due to a series of factors, the German domestic market for solar thermal products shrank by 37% in 2007 compared with 2006. At 658 MW_{th} the newly installed capacity (940.000 m^2 of collector area), remained just below 2005 figures.

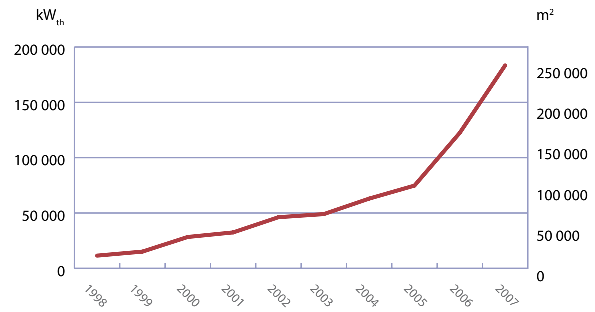
The decline was strongly influenced by the overall heating equipment market, which decreased by approximately 30%. Sales in the first 4 months of 2008 picked up by 33% so that the industry is cautiously optimistic to end the year with a growth of more than 30%.



Austria

Austria, too, saw its domestic solar thermal market decline, albeit much less than in neighbouring Germany. New installations dropped by 4 percent to 197 MW_{th} (281.000 m^2).

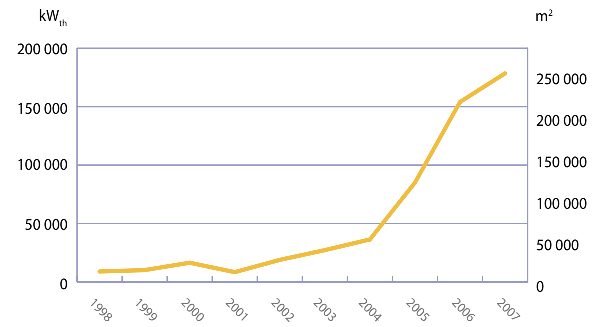
But per-capita sales in Austria still top those of any other European country apart from Cyprus: Per 1.000 Austrians, 24 kW_{th} of new solar thermal capacity were added in 2007 – three times as much as in Germany and six times as much as the European average of 3,8 kW_{th}/1.000 capita.



Spain

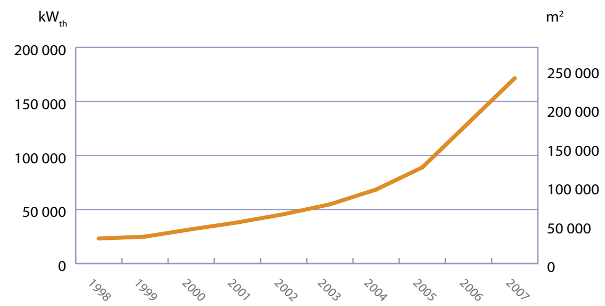
In Spain 183 MW_{th} of capacity were newly installed during 2007 (262.000 m^2), 50% more than in the previous year. As most buildings constructed in 2007 were planned before the new building code came into effect, the solar obligations have not yet had a significant effect on the market.

The impact should start to show in 2008. However, Spain currently experiences a slow-down of the construction sector, which may also have an effect on how the CTE is applied. The different effects make it difficult to forecast where the market will end in 2008.



France

Between 1998 and 2007, the market in Metropolitan France grew by almost 40% per year. With just 16% growth over the previous year, 2007 itself remained somewhat behind this average. 179 MW_{th} were newly installed in 2007 (255.000 m^2), which made up for 9% of the total EU market. Another 49 MW_{th} (70.000 m^2) were added in the French Overseas Departments and Territories. At 2,9 kW_{th}/ 1.000 capita, the market in Metropolitan France still stays below the European average of 3,8 kW_{th}/1.000 capita.



Italy

In Italy 172 MW_{th} of solar thermal capacity were newly installed in 2007 (245.000 m^2), 32% more than in the previous year. Although the national law requiring the use of solar thermal has still not been implemented in most municipalities, Italy has seen a strong rise in the demand for solar thermal heating solutions.

But with just 2,9 kW_{th} per 1.000 capita – exactly as France – Italy remains one of the most promising markets for strong growth in the coming years.

Market Size in Terms of Collector Area (kW_{th})

	In Operation[2]	Market (=Newly Installed)					Market Growth
	2007	2005	2006	2007			2007/2006
	Total Glazed kW_{th}	Total Glazed kW_{th}	Total Glazed kW_{th}	Total Glazed kW_{th}	*Flat Plate kW_{th}*	*Vacuum Collectors kW_{th}*	Total Glazed %
AT (Austria)	2 024 839	163 429	204 868	196 700	*194 320*	*2 380*	-4%
BE (Belgium)	102 283	14 164	24 945	29 400	*25 900*	*3 500*	18%
BG (Bulgaria)	17 570	1 400	1 540	1 750	-	-	14%
CH (Switzerland)	356 286	27 392	36 304	45 802	*44 015*	*1 788*	26%
CY (Cyprus)	437 640	35 000	42 000	45 500	-	-	8%
CZ (Czech Republic)	92 211	10 885	15 421	17 500	*13 230*	*4 270*	13%
DE (Germany)	6 295 800	665 000	1 050 000	658 000	*588 000*	*70 000*	-37%
DK (Denmark)	269 696	14 875	17 710	16 100	*15 400*	*700*	-9%
EE (Estonia)	1 029	175	210	245	-	-	17%
ES (Spain)	674 916	74 760	122 500	183 400	*175 700*	*7 700*	50%
FI (Finland)	14 345	1 668	2 240	2 800	*2 100*	*700*	25%
FR (France)[3]	609 420	85 050	154 000	178 500	*170 100*	*8 400*	16%
GR (Greece)	2 499 140	154 350	168 000	198 100	*195 300*	*2 800*	18%
HU (Hungary)	9 975	700	700	5 600	*4 200*	*1 400*	700%
IE (Ireland)	21 553	2 450	3 500	10 500	*7 000*	*3 500*	200%
IT (Italy)	770 161	88 941	130 200	171 500	*147 000*	*24 500*	32%
LT (Lithuania)	2 415	350	420	490	-	-	17%
LU (Luxemburg)	13 230	1 330	1 750	2 100	-	-	20%
LV (Latvia)	3 745	700	840	1 050	-	-	25%
MT (Malta)	20 552	2 800	3 150	3 850	-	-	22%
NL (Netherlands)	236 839	14 174	10 280	13 930	*12 530*	*1 400*	36%
PL (Poland)	164 428	19 390	28 980	46 900	*30 800*	*16 100*	62%
PT (Portugal)	144 165	11 200	14 000	17 500	*15 400*	*2 100*	25%
RO (Romania)	48 720	280	280	350	-	-	25%
SE (Sweden)	183 676	15 835	19 977	17 826	*10 888*	*6 938*	-11%
SI (Slovenia)	84 910	3 360	4 830	8 400	*7 210*	*1 190*	74%
SK (Slovakia)	57 225	5 250	5 950	6 300	*5 418*	*882*	6%
UK (United Kingdom)	213 444	19 600	37 800	37 800	*18 900*	*18 900*	0%
EU27 + CH	15 370 212	1 434 508	2 102 395	1 917 893	-	-	-9%

Notes

[1] The relation between collector area and capacity is $1m^2 = 0{,}7kW_{th}$ (kilowatt-thermal)

[2] Capcity "in operation" refers to the solar thermal capacity built in the past and deemed to be still in use. ESTIF assumes a time of use of 20 years for all systems installed since 1990. Most products today would last considerably longer, but they often cease to be used earlier, e.g. because the building is torn down, or the use of the building has changed.

[3] The figures shown here relate to France Metropolitan only. In the French Overseas Departments and Territories $49MW_{th}$ ($70\,000m^2$) were newly installed in 2007.

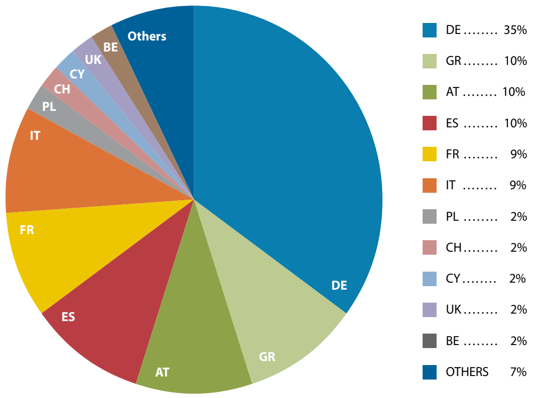
Market Size in Terms of Collector Area (m^2)

	In Operation[2]	Market (=Newly Installed)					Market Growth
	2007	2005	2006	2007			2007/2006
	Total Glazed m^2	Total Glazed m^2	Total Glazed m^2	Total Glazed m^2	*Flat Plate m^2*	*Vacuum Collectors m^2*	Total Glazed %
AT (Austria)	2 892 627	233 470	292 669	281 000	*277 600*	*3 400*	-4%
BE (Belgium)	146 118	20 234	35 636	42 000	*37 000*	*5 000*	18%
BG (Bulgaria)	25 100	2 000	2 200	2 500	-	-	14%
CH (Switzerland)	508 980	39 132	51 863	65 432	*62 878*	*2 554*	26%
CY (Cyprus)	625 200	50 000	60 000	65 000	-	-	8%
CZ (Czech Republic)	131 730	15 550	22 030	25 000	*18 900*	*6 100*	13%
DE (Germany)	8 994 000	950 000	1 500 000	940 000	*840 000*	*100 000*	-37%
DK (Denmark)	385 280	21 250	25 300	23 000	*22 000*	*1 000*	-9%
EE (Estonia)	1 470	250	300	350	-	-	17%
ES (Spain)	964 166	106 800	175 000	262 000	*251 000*	*11 000*	50%
FI (Finland)	20 493	2 383	3 200	4 000	*3 000*	*1 000*	25%
FR (France)	870 600	121 500	220 000	255 000	*243 000*	*12 000*	16%
GR (Greece)	3 570 200	220 500	240 000	283 000	*279 000*	*4 000*	18%
HU (Hungary)	14 250	1 000	1 000	8 000	*6 000*	*2 000*	700%
IE (Ireland)	30 790	3 500	5 000	15 000	*10 000*	*5 000*	200%
IT (Italy)	1 100 230	127 059	186 000	245 000	*210 000*	*35 000*	32%
LT (Lithuania)	3 450	500	600	700	-	-	17%
LU (Luxemburg)	18 900	1 900	2 500	3 000	-	-	20%
LV (Latvia)	5 350	1 000	1 200	1 500	-	-	25%
MT (Malta)	29 360	4 000	4 500	5 500	-	-	22%
NL (Netherlands)	338 341	20 248	14 685	19 900	*17 900*	*2 000*	36%
PL (Poland)	234 897	27 700	41 400	67 000	*44 000*	*23 000*	62%
PT (Portugal)	205 950	16 000	20 000	25 000	*22 000*	*3 000*	25%
RO (Romania)	69 600	400	400	500	-	-	25%
SE (Sweden)	262 394	22 621	28 539	25 465	*15 554*	*9 911*	-11%
SI (Slovenia)	121 300	4 800	6 900	12 000	*10 300*	*1 700*	74%
SK (Slovakia)	81 750	7 500	8 500	9 000	*7 740*	*1 260*	6%
UK (United Kingdom)	304 920	28 000	54 000	54 000	*27 000*	*27 000*	0%
EU27 + CH	21 957 446	2 049 297	3 003 422	2 739 847	-	-	-9%

Shares of the EU Market (Newly Installed Capacity)

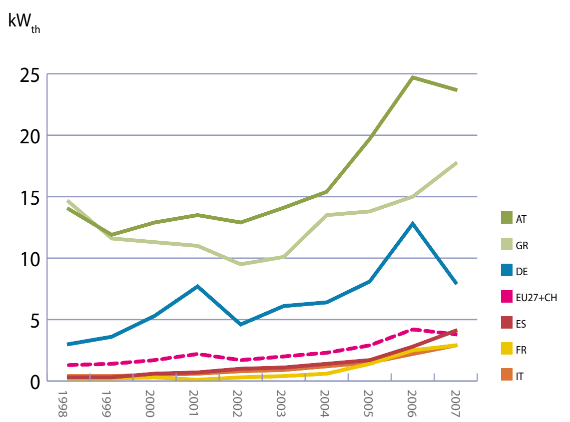
In 2007, Greece, Spain, France and Italy were able to significantly increase their share of the total EU market and now account for 9-10% of European sales, each. Germany on the other side saw its share decrease from 50% in 2006 to 35% in 2007. However, it is expected that already in 2008 Germany will be able to re-gain market share.
Nevertheless, concentration in the European market is decreasing. In 2007, the top five countries accounted for ¾ of the total – just a few years ago the same share was held by three countries only (Germany, Austria and Greece).
From the big EU countries, only Poland is not yet seen amongst the top solar thermal markets. But with increasing sales and a growing domestic industry, they are expected to show up soon in the chart on the right.

Share of the European solar thermal market



Development of Per-Capita Market (Newly Installed Capacity per Capita)

Development of market per 1.000 capita



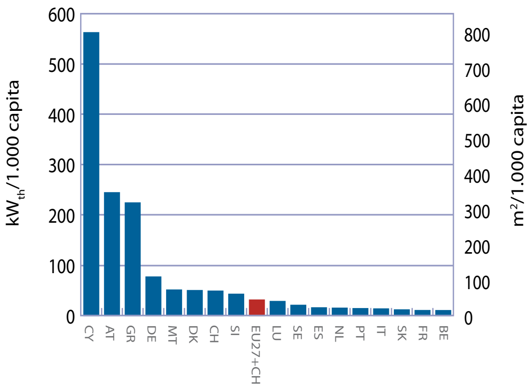
Another interesting indicator of the strength of the solar thermal market in one country is the newly installed capacity per capita. The chart to the left shows the development of this indicator for several key markets. It reveals the big advance of the Austrian solar thermal market: With 23,7 kW$_{th}$ per 1.000 capita, the relative market was almost three times that of Germany and more than six times the EU average of 3,8 kW$_{th}$ per 1.000 capita.
Greece has slowly and quietly increased its per capita market since 2002. Their 17,7 kW$_{th}$ per 1.000 capita in 2007 is 4,5 times as big as the European average.
Despite their strong growth in recent years, the markets in Metropolitan France and Italy still is only at 2,9 kW$_{th}$ per 1.000 capita. From the fast growing Mediterranean markets, only Spain has just surpassed the EU average.

Solar Thermal Capacity in Operation per Capita

The chart to the right shows the solar thermal capacity in operation. The figures relate to all installations built in the past and deemed to be still in operation (ESTIF assumes a life-time of 20 year for systems installed after 1989) and to today's size of the population.
Clearly, Cyprus remained the European leader at the end of 2007: With 562 kW$_{th}$ the southernmost country of Europe had almost as much solar thermal capacity in operation per 1.000 capita as 2nd and 3rd ranking Austria and Greece together. In continental Europe, Austria shows the rest what is possible in the development of solar thermal markets. Its 244 kW$_{th}$/1.000 capita are almost 8 times as high as the European average at 30,7 kW$_{th}$/1.000 capita.

Solar thermal capacity in operation

per 1.000 capacity in 2007



Photos courtesy of: Arcon, Austria Solar, Batec, Solarhart, Reüel van der Steege, and Wagner & Co

European Solar Days

The first European Solar Days were celebrated in the week comencing 16 May 2008 when over 4000 different events took place in 13 European countries.

Austria, Belgium, Germany, Italy, France, the Netherlands, Norway, the United Kindom, Portugal, Spain, Slovenia and Switzerland already joined in the celebrations in 2008, and other countries are expected to join the initiative in 2009. It is planned to extend the Solar Days throughout Europe in the future.

The European Solar Days bring together major players from the solar thermal and solar electric (PV) sectors throughout Europe. The European Solar Days, which are coordinated by ESTIF in close co-operation with EPIA, are supported by 20 organisations at a national and European level.

European Solar Days

15 - 23 May 2009

Event organisers:
technicians, manufacturers, schools, research institutes, banks, regional governments, local administrations, energy agencies, environmental organisations, installers, politicians and anyone interested in Solar Energy

Possible types of events (all related to solar energy)

- On-Site: Open Days, guided tours, technical visits, solar festivals, solar parties
- Educational: educational actties in schools, info days at local energy agencies, banks, town halls
- Showcasing: solar trade fairs, solar exhibitions, solar conferences
- Formal: inauguration of solar installations, opening ceremonies

Web: www.solardays.eu

About ESTIF

European Solar Thermal Industry Federation

Join the European Solar Thermal Industry Federation today

About the European Solar Thermal Industry Federation

The European Solar Thermal Industry Federation represents over 100 members consisting of manufacturers, service providers and national associations, which collectively hold 95% of today's solar thermal market.

It is our mission to achieve high priority and acceptance for Solar Thermal as a key element for sustainable heating and cooling in Europe. We are working for the implementation of all steps necessary to realise the high potential of Solar Thermal. Within this mission ESTIF also supports research and development through the creation of the European Solar Thermal Technology Platform. The great potential of solar thermal is shown in the creation of new job opportunities in the manufacturing and installation sectors of solar thermal collectors.

Key Activities

Representing the sector at EU level

Campaigning for an EU directive to promote renewable heating and cooling

Promoting best practice policies for solar thermal

Promoting the abolition of any barriers to trade in solar thermal products and services

Managing the secretariat of the European Solar Thermal Technology Platform

Organising major events such as the European Solar Thermal Energy Conference, estec2009

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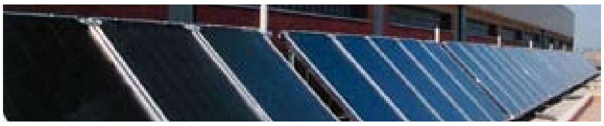
10 excellent reasons to join ESTIF

Join ESTIF today and become a part of the voice that speaks for you in Europe. Choose the membership which suits your organisation best and take an active role in the future of solar thermal in Europe.



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