



# SOLARGE – Enlarging Solar Thermal Systems in Multi-Family Houses, Hotels, Public and Social Buildings in Europe *target GmbH, Germany*

## Summary



### SOLARGE

Enlarging Solar Thermal Systems in Multi-Family-Houses, Hotels, Public and Social Buildings in Europe

SOLARGE is a European cooperation project supported by the “Intelligent Energy – Europe” programme of the European Union; the consortium consists of eleven partners from eight countries. The project is aiming at opening up the long ignored markets for large-scale solar thermal plants with collector areas of 30 square metres upwards for domestic hot water supply as well as supplementary heating and cooling in multi-family houses, hotels, public and social buildings. SOLARGE offers information, training and communication measures, which raise awareness and build up capacities for quality planning and installing. Project activities motivate potential private, commercial and public investors as well as suppliers and decision-makers in politics and administration to acknowledge and utilise the market potential of large solar thermal installations. Major results of SOLARGE are market studies, an online good practice database that currently presents 80 detailed case studies from various countries as well as specific training materials. Further achievements include successful policy advice, trainings and information events.

### End-user area

- New buildings
- Refurbishment of buildings
- Transport and mobility
- Financial instruments
- Industry
- Legal initiatives (regulations, directives, etc)
- Planning issues
- Sustainable communities
- User behaviour
- Education
- Other

### Target Audience

- Citizens
- Households
- Property owners
- Schools and universities
- Decision makers
- Local and regional authorities
- Transport companies
- Utilities
- ESCOs
- Architects and engineers
- Financial institutions
- Other

### Technical

- Energy efficiency
- Heating
- Cooling
- Appliances
- Lighting
- CHP
- District Heating
- Solar energy
- Biomass
- Wind
- Geothermal
- Hydro power
- Other

## Context

About 49 % of final energy demand in the EU is used for heating and cooling requirements, mainly in buildings. The buildings sector represents the major application field for solar thermal systems, which can contribute substantially to reducing greenhouse gas emissions and consumption of fossil fuels. Apart from Spain, large-scale (collective) solar thermal systems still represent a small or marginal market share throughout Europe, despite the fact, that they have been proven to be reliable and technologically mature. The main obstacles are not to be found in the technological area, but in the lack of knowledge capacity, need for activation of investors, installers, policy makers as well as necessity of intensified communication.



Large solar thermal plant in Paris

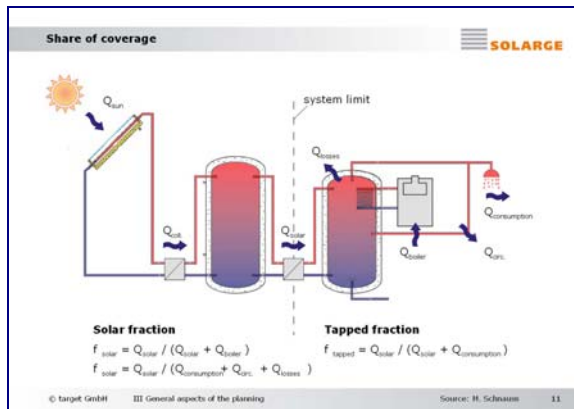


### Objectives

SOLARGE aims at addressing and overcoming non-technological market barriers of collective solar thermal systems (CSTS) with collector areas typically sized from 30 to 100 square metres. The strategies include analyses of the market status-quo in the involved countries, compiling and disseminating good practice examples and successful application, developing and carrying out planner and installer trainings as well as launching targeted promotional activities for investor groups, policy makers as well as market actors.

### Process

The starting point for SOLARGE was an in-depth stocktaking of the situation for CSTS in the involved countries Denmark, France, Germany, Italy, Netherlands, Slovenia and Spain as well as in Cyprus, followed by the identification and compilation of existing good practice examples. Market analyses and a thorough good practice questionnaire were the methods used. In a second step, the project aimed at training and capacity building of the supply side by exchanging and adapting successful training concepts. Training courses for installers and planners were developed and implemented, and an English master version is available to all partners for national adaptation and translation. Furthermore, addressing potential investors of CSTS by awareness raising activities was the third approach followed. Producing information materials as well as numerous customised information events like conferences, seminars, fairs and workshops were the general methods used here. Objectives of the fourth step are to stimulate the actual implementation of CSTS pilot projects and to support action plans and programmes on a local level. The fifth approach taken by SOLARGE includes setting the issues of CSTS on the policy agenda by developing and formulating strategy papers and policy advice for relevant authorities.



Slide example from the training materials

SOLARGE online good practice database

All available data and documents as well as regularly updated project news can be found on the website www.solarge.org, which provides information in eight languages. Furthermore, the materials and service tools for target groups and prospective clients are downloadable from the project website.

All in all, the approaches taken by the project are founded on a close collaboration of the project partners and the creation of synergies from the various expertises represented within the consortium.

### Financial resources and partners

The total project budget is € 1,367,243, and the EU contribution via the “Intelligent Energy – Europe” programme amounts to 50 %. Co-financing is supplied by regional or national organisations or from the SOLARGE partners directly.



SOLARGE is being implemented Europe-wide by the following project consortium:

Belgium

- ESTIF – European Solar Thermal Industry Federation

Denmark

- Rambøll Danmark A/S

France

- ADEME – Agence de l'Environnement et de la Maîtrise de l'Energie
- ENERPLAN – Association Professionnelle de l'Energie Solaire

Germany

- Berliner Energieagentur GmbH
- BSW – Bundesverband Solarwirtschaft e. V.
- target GmbH (project coordinator)

Italy

- Ambiente Italia srl

Netherlands

- Ecofys Netherlands BV

Slovenia

- University of Ljubljana, Faculty of Mechanical Engineering

Spain

- Ecofys S.L.

## Results

SOLARGE is a non-technological project focussing on promotional and communicative measures to overcome lack of knowledge capacity and awareness in an area mostly overlooked and neglected in the past. Due to this fact, quantity and costs of energy saved by the project are neither easy to identify nor priority criteria within the project's achievements.

In general, SOLARGE proved to be an important first step into the area of opening up the markets for large-scale solar thermal systems. A systematic approach to the information and awareness gap concerning CSTS by a national or regional alliance of experts, stakeholders and policy is to be seen as one important result of the project.

Further results include:

- The publication of eight detailed national market studies and one common market report comparing and analysing the national surveys
- A good practice database with more than 80 examples from various countries which offers insights into technical and financial details as well as description of development and experiences
- The preparation and dissemination of a high-quality image brochure on CSTS available in Danish, Dutch, English, German, Italian, Slovenian and Spanish



Training course in Germany



CSTS symposium in Hannover



An English master version of the training materials with more than 200 slides and explanatory notes has been developed. Until now, SOLARGE partners have implemented about 15 training sessions with approximately 370 participants. Furthermore, the project was presented at regional, national and international level in more than 80 events such as conferences, seminars, trade fairs and workshops in all partner countries for various stakeholders like installers, planning and housing companies, investors, experts and research institutions. In Germany, Italy, the Netherlands and Slovenia, SOLARGE partners developed CSTS strategy papers for national authorities or networks.

### Lessons learnt and repeatability

The basic lesson learnt is that improving awareness of a certain issue is a long-term process that needs reliable networks and cooperation. SOLARGE was only the beginning of this process in most of the involved settings and will need more continuous input related to training, addressing of potential investors as well as stimulating policy response. The SOLARGE approaches regarding stocktaking of the situation for CSTS can easily be adapted and compared to other countries. The materials concerning capacity building in training and policy advice as well as awareness raising are also available for adaptation or translation. The good practice database is available online and the detailed content presented could be used in other related information channels and projects.

### Contact for more information:

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### Printed reports or other literature available:

- Title: (1) Market Report for Enlarging Solar Thermal Systems in Multi-Family Houses and Hotels in Europe  
Cost: free (downloadable from [www.solarge.org](http://www.solarge.org))
- (2) Solar Heat for Large Buildings  
(Danish, Dutch, English, German, Italian, Slovenian, Spanish)  
Cost: free (downloadable from [www.solarge.org](http://www.solarge.org))
- (3) SOLARGE Newsletters  
Cost: free (downloadable from [www.solarge.org](http://www.solarge.org))