

REPORT WP2.D4

Material for marketing large solar thermal systems to building companies

Dissemination status: Public
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March 2006

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SUMMARY

Large solar thermal systems have the potential to contribute significantly to the heat provision of multi storey buildings. Up to now, the dissemination of the technology in this sector is very limited though. This is due to economic factors, missing expertise amongst the involved parties and the lack of information on the state of solar thermal technology.

As a consequence of the limited market, a very small number of companies have large solar thermal installations as their core business. Those rather small and specialised companies have limited possibilities on launching significant marketing actions.

Up to now, efforts to bundle information on the application of solar thermal technology in larger buildings in appealing materials were the issue of national incentives. In NEGST WP2 the generated materials were surveyed and analysed for similarities. This report on material for marketing large solar thermal systems for building companies aims at providing a basis for future materials provided by companies or agencies.

The core issues that should be lined out regarding the national framework are presented and the compiled examples are jointly provided as references in this report.

Introduction and methodology

Materials for marketing solar thermal technology to the building industry are needed to catch the attention of decision makers and to provide a simple introduction to a rather sophisticated topic. Such materials can either be provided by companies or by agencies as part of corresponding programs for the promotion of solar thermal technology.

To reach the attention of the target group, the materials do not only have to address the relevant aspect for the consideration of innovative technologies in building services engineering but also have to conform to certain basic rules of design, which are the business of professionals in this field. As there are no such partners involved in the NEGST WP2 team, the aim of this subtask is rather to provide a basis for the professional creation of such materials by providing a compilation of good practise examples and a summary of topics that are supposed to be addressed in order to cover the needs of the target group. Due to the substantially different general conditions from technical to political aspects in the national markets, no physical overall European marketing materials have been designed. To be effective, the materials very much have to focus the national situation and should be a product of a consortium of regarded national institutions, associations or professional companies.

As a first step in this subtask, WP2 partners were asked to do a research on corresponding materials composed for their national markets in the past. Those were afterwards compiled and checked for similarities that might act as common design rules when addressing the target group of building industry. Such materials were found for the national markets of Austria, France, Germany and Switzerland, where there had been coordinated national action taking place to promote the use of large solar thermal systems to the building industry. Hardly any professional material from solar companies to address the building industry could be allocated. This reflects the fact, that the sector of large solar thermal systems in multi storey buildings is not yet a relevant market for most solar companies. The few companies providing these examples originate from Austria and Germany. It has to be noted, that some companies in other countries might have been missed by the research.

Most collected examples have been produced by agencies and national programs. These materials provide a professional outfit and a well considered content. In the opinion of the author, these materials do serve well as examples for future materials. To make the content, currently being provided in national languages only, acceptable for other European stakeholders, the different examples have been analysed and summarised in this report.

Analysis of existing material and recommendations

A total of 9 brochures, explicitly focussing on the application of solar thermal technology in multi family houses were gathered and analysed for common design rules.

As the four core categories, that are to a different extent covered by all materials, aspects of motivation, technical aspects, economic aspects and organisational aspects could be identified. The key issues within these categories, that are recommended to be addressed are presented in the following, utilizing the chronological sequence, which they are presented in most of the analysed brochures.

Aspects of motivation

As solar thermal technology due to its low dissemination still represents a rather exotic technology, all materials put a focus on lining out, how the company might benefit from its application. While the compiled company marketing materials widely go straight on the economic benefits of solar thermal technology, the material designed in national incentive programs addresses a wider range of issues that are to motivate the decision makers in the building industry.

Those line out, that solar technology has a very positive image amongst the public and contributes to the attractiveness and future oriented appearance of buildings. This is frequently underlined by comments of inhabitants or building owners. In addition – if the fact in the respective countries – the positive development of either the whole national solar thermal market or the application in collective housing is positively outlined.

Furthermore, good examples of existing national systems are used to demonstrate the maturity of the technology. These can also include the demonstration of the numerous possibilities to integrate solar thermal technology into buildings and energy concepts. Depending on national technical standards and whether rather the application in new buildings or solar retrofitting is to be announced, a special focus is set here.

A few words on the continuous rise of energy costs during the last years compared to the fact that solar thermal application after their installation produce almost free heat for more than 20 years is used as a motivator as well.

In the marketing material produced as part of a national incentive, some comments of officials might serve as an introduction to the material.

Technical aspects

The analysed materials vary in the depth of explaining technical details concerning large solar thermal systems. Some show a wide range of possibilities for the hydraulic integration while others focus on some proved concepts here. This might to a big part be dependent on if the material aims at new buildings or retrofitting projects, where a broad range of system integration possibilities is demanded.

Most of the brochures feature some kind of glossary in combination with the technical part, which explains the main components and specific terms like “solar fraction”. As an important issue of the technical part hints on possible sizes of collector surface and heat storage by outlining rough design parameters and achievable solar fractions for the separate applications are given. Information on the influence of the buildings orientation, room for storages and the domestic hot water respectively heat demand is for example included in a checklist that allows a quick probe for the suitability of a building. A special focus is also put on the esthetical integration of the collectors into the buildings envelope providing some good examples.

Company materials line out the special advantages of their products in this part.

Economic aspects

As for the addressed target group, economy plays a major role for the consideration of solar thermal technology and is widely seen critical in this context, the section on economy is the most relevant and diverse one in the analysed marketing materials.

There, the economy of the technology under the national economic settings is demonstrated. The most transparent form of picturing out the economic dimension is to compare the initial investment costs to the energy cost savings based on actually measured data for several projects. The measured data is an important argument in marketing materials of companies. If not in that detail, somewhat rough numbers for pay back times of solar thermal installations substituting the respective energy sources are frequently outlined. General economic settings and used parameters thereby have been very clearly addressed by some of the materials. As a further key figure, the extra costs caused by the solar installation per m² useable living area are outlined in one brochure. Depending on the national availability, subsidies and grants for solar thermal systems are mentioned.

When it comes to retrofitting of multi family houses, a further crucial addressed issue is the possibility to shift the renovation costs to the rents for the flats. This issue is very much dependent on the national regulatory framework. Other concepts for solving the investor-user dilemma are also presented in this context. For the countries, where suppliers of third party financed solar thermal systems appear on the national market and where the externalisation of the heat supply is an option for the local housing companies, this possibility is addressed for example.

Organisational aspects

An own part in some of the analysed material is dedicated to organisational aspects in connection with the application of solar thermal technology in multi family buildings. Some of the evaluated brochures focus significantly on these like the French ones putting the concept of "Guaranteed Solar Results" in the centre. Even though the addressing of these organisational measures is a thin line as it might fuel the scepticism and concerns about large solar thermal systems being a very tricky issue after all, they are sure to be a part of the bigger number of the compiled materials for a reason. The consideration of these issues focuses on presenting the investment in a solar thermal installation as a safe one.

With new buildings the importance of an early consideration of the solar installation in the planning phase is pointed out. Checklists summarising technical, financial and organisational appear at the end of some materials.

Finally, national contact persons, associations or independent consultants and related websites are outlined in the marketing material provided by associations and institutes.

Summary and conclusions

During the national researches a number of very well considered materials for marketing large solar thermal systems to the building industry have been gathered. While some present the issue on four pages, there are also brochures represented that address the topic quite extensively. The brochures are jointly provided through links at the end of this brief report and in the opinion of the author serve well as examples for future materials.

For the production of national marketing materials, the outlined essential issues should be more or less extensively described considering their relevance on a national level and the given national framework. Considering the distribution of emphasis on the separate issues in the analysed materials, aspects of economy are the most relevant to be described in effective marketing materials for the building industry. It is recommended to extensively describe the economic settings for the application of large solar thermal systems on a basis of clearly presented basic parameters.

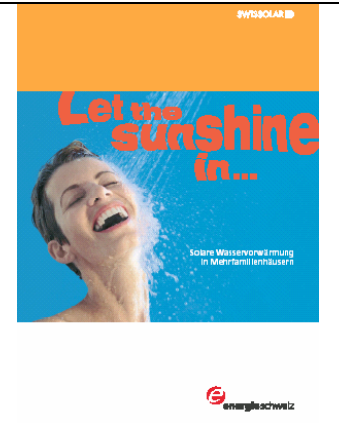
Summary of national examples

Swiss Solar / Energie Schweiz

“Solare Wasservorwärmung in Mehrfamilienhäusern”
 „Solar pre-heating of domestic hot water in multi family houses“
 (German, French and Italian language)

National brochure of the Swiss national solar thermal association providing a brief overview on the topic on 6-pages.

[Link to document](#)



Energie Schweiz

“Solare Wassererwärmung in Mehrfamilienhäusern”
 „Solar preparation of domestic hot water in multi family houses“
 (German language)

National brochure of the Swiss energy agency with 15 pages choosing a rather technical approach with the demonstration of many possibilities for the integration of the solar system.

[Link to document](#)



klima:aktiv solarwärme

“Solarwärme für Mehrfamilienhäusern”
 „Solar heat for multi family houses“
 (German language)

National brochure of the Austrian consortium enforcing a national promotion program for the application of solar thermal technology amongst other sectors in multi family houses (12 pages).

[Link to document](#)



Soltherm / Berliner Energieagentur

“Wertsteigerung von Wohngebäuden- Wege zur Umsetzung solarthermischer Projekte in der Wohnungswirtschaft”
„Increase in value of dwelling houses – Paths to the implementation of solar thermal projects in the housing industry“
 (German language)

Brochure compiled in the Soltherm Europe project (16 pages).

[Link to document](#)

**ADEME**

“L'eau chaude solaire collective”
„Collective solar hot water systems“
 (French language)

National brochure of ADEME on the utilisation of solar thermal technology in collective housing (16 pages).

[Link to document](#)

**ADEME**

“Eau chaude solaire collective: bonnes pratiques”
„Collective solar hot water systems – good examples“
 (French language)

National brochure of ADEME demonstrating good national examples and the GSR concept on 40 pages.

[Link to document](#)



Solvis

“SolvisZentro – Die wirtschaftliche Lösung für die Sanierung im Wohnungsbestand“

„SolvisZentro – The economic solution for the retrofitting of existing residential buildings“

(German language)

Company marketing material from a German provider (4 pages).

[Link to document](#)

**Parabel**

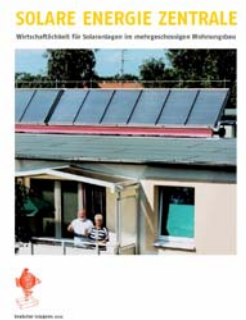
“Solare Energie Zentrale – Wirtschaftlichkeit für Solaranlagen im mehrgeschossigen Wohnungsbau“

„Solar Energie Zentrale – Economy for solar installations in multi storey houses“

(German language)

Company marketing material from a German provider (12 pages).

[Link to document](#)

**S.O.L.I.D.**

“Ohne Titel”

„Untitled“

(German language)

Company marketing material from an Austrian provider (4 pages).

[Link to document](#)

