

# Architecturally appealing solar thermal systems

- A marketing tool in order to attract new market segments

INFO Sheet A6

Description:	Online database consisting of showcases where solar thermal energy systems have been successfully integrated into the architecture
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Download at:	<a href="http://projects.iea-shc.org/task39/projects/default.aspx">http://projects.iea-shc.org/task39/projects/default.aspx</a>

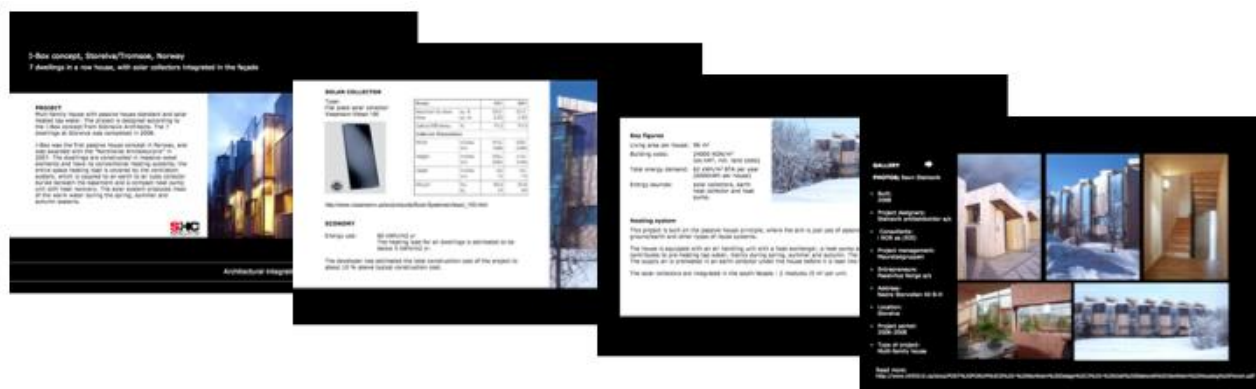
## Introduction

Architectural integration is a major issue in the development and dissemination of solar thermal technology. Unfortunately, the architectural quality of integrated solar thermal systems in many existing buildings is poor, which often discourages potential new users. Because solar thermal systems are relatively large in relation to the building envelope, the architectural quality of their integration has a major impact on the visual quality of the building. This should, together with the fact that public acceptance of solar energy to a high extent depends on the quality of the architectural integration, stimulate and motivate a much stronger focus on making solar thermal systems visually appealing— something people really would want to put on their houses and something architects would want to implement in their design of new buildings.

## Project presentations

As contribution from IEA SHC Task 39 to the challenge of making solar thermal systems more desirable, a [database](#) that showcases successfully integrated solar thermal energy systems as a source of inspiration for architects and others [1]. The database presents a broad range of buildings divided into four different categories: single-family houses, multi-family houses, institutional and commercial buildings.

An experts group (architects and solar thermal engineers) evaluated incoming project proposals and selected the best examples. A short, easy to fill in questionnaire was used to collect relevant information, such as general project data, type of solar heating system, collector area, auxiliary heating, type of heat store, estimated payback time and collector description.



Examples from the database of successful architectural integration.

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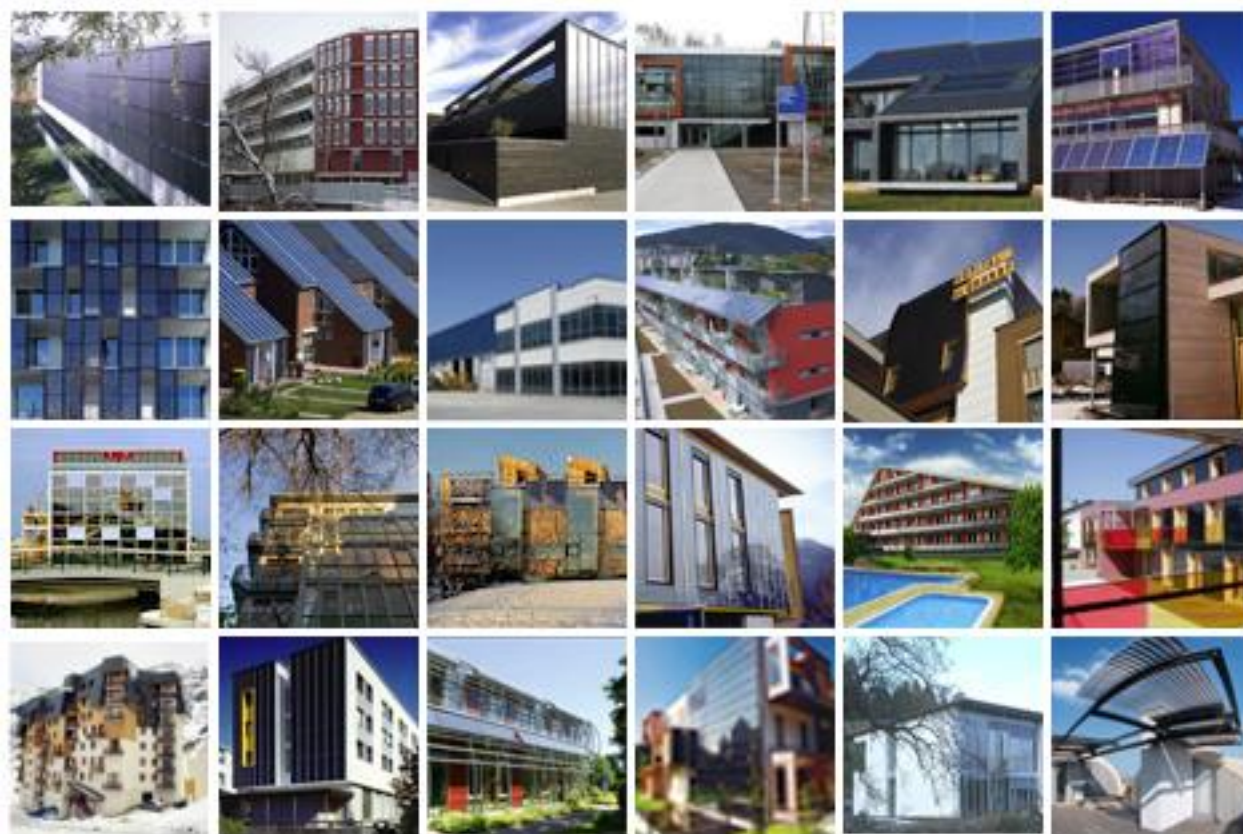
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## Architectural integration from a marketing perspective

The appearance of a product certainly counts in making a first impression on a customer and often plays a decisive role in the final decision to buy or not. Effective use of design and high visual quality adds value to the product and builds trust and confidence. Attractive design also helps in differentiating between competing products.

When it comes to solar thermal systems, the collector design is only one part of the final product. Placement of the collector field and good architectural integration is more important for the final result as that is what will be judged by the public. The database consists of 41 buildings where solar heating systems have been successfully integrated in the architecture – giving added value to each building.



Exemplary showcases from the Task 39 database - suggestions for further reading [2, 3].

The work on the architectural integration of solar applications was also successfully pursued in IEA SHC Task 41: Solar Energy and Architecture (2009 – 2012) which focused on both high architectural quality and high energy performance. For more information on SHC activities on architecture and solar energy please also refer to: <http://task41.iea-shc.org/>.

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### **References**

- [1] Database with architecturally appealing solar thermal systems: <http://www.iea-shc.org/task39/projects/>
- [2] I. Skjelland. *Architecturally appealing solar thermal systems – a great marketing tool in order to attract new customers and market segments*. In Proceedings: EUROSUN 2010 Conference, Gleisdorf, Austria, Sept. 28-Oct. 01, 2010.
- [3] I. Skjelland et al., "Architecturally appealing solar thermal systems – A marketing tool in order to attract new customers and market segments." In: *Polymeric Materials for Solar Thermal Applications*. Eds. M. Köhl et al., Weinheim, Germany, 2012; <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-3527332464.html>