

SYMPOSIUM | APRIL 8TH 2013 | BELGIUM

COMBINED SOLAR THERMAL AND HEAT PUMP SYSTEMS FOR RESIDENTIAL APPLICATIONS

Both heat pumps and solar thermal collectors have gained high popularity in the European and Belgian market. The similarity of these trends is striking, though unfortunately, it remains unknown to what extent the components were installed in combined systems.

Combinations of heat pump and solar thermal systems applied for residential heating and domestic hot water production are considered potentially interesting to contribute to the targets as set by the EPBD (energy performance of buildings directive) and RESD (directive on the promotion of energy from renewable sources). These systems are able to improve the energy performance of buildings and augment the share of energy from renewable energy sources. Combined solar thermal heat pump systems are currently further improved by research activities on optimizing control and system performance both on an international (IEA-SHC task 44 / Annex 38) as on a national level (IWT-TETRA: Zon-Warm). The potential of these combined systems is gradually confirmed and elimination of pitfalls for long-term successful commercialization is aimed at.

Thomas More Mechelen and THELES research group are happy to host the symposium on combined solar thermal and heat pump systems for residential applications. The speakers from research centers, industry and engineering companies will share their experiences in enhanced design and operation of solar thermal heat pump systems for residential heating and domestic hot water production. This symposium will give insight in recent developments in design and application of solar heat pump systems for residential applications. It will focus both on the design as on practical applications including results from surveys and possibilities for performance improvements. Participation is useful for professionals employed in HVAC engineering, research and development, architects, product developers and suppliers of heat pump, solar thermal and combined systems.

Join this unique event to meet international experts, researchers and leading professionals at the symposium on solar thermal heat pumps for residential applications.

This symposium is organized in cooperation with IEA-SHC task 44 / Annex 38 and IWT (government agency for Innovation by Science and Technology).



Organizers | Contact

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Programme

- **13h00:** Coffee
- **13h20:** Welcome | **Jan Ivens**, KU Leuven-Thomas More Mechelen
- **13h30:** Solar and heat pumps systems - Task 44 presentation | **Jean-Christophe Hadorn**, Base Consultants
- **14h00:** Belgian Heat Pump Market | **Jan Lhoëst**, Warmtepomp Platform
- **14h15:** Solar thermal energy in Belgium: more than only sanitary hot water | **Wim Persoons**, ATTB-Belsolar
- **14h30:** Lab test results of an actively controlled heat pump for integration of renewable electricity | **Dirk Vanhoudt**, VITO
- **15h00:** Hydraulic integration of heat pumps with combistores | **Michel Haller**, Institut für Solartechnik

- **15h30:** Coffee break
- **16h00:** A comparative analysis of market-available solar thermal heat pump systems | **Jörn Ruschenburg**, Fraunhofer-ISE
- **16h30:** Effects of charging configuration of a hot water storage tank on stratification and storage capacity | **Brecht Baeten**, Khlim
- **17h00:** Workshop | **Team Zon-Warm**, Thomas More Mechelen
- **18h00:** Closing reception at the vicinity of the industry fair (industry fair: to be acknowledged).

Practical

- **Date:** April 8th 2013, 13h00 - 18h00
- **Location:**
Thomas More, Zandvoortvest 60, 2800 Mechelen, Belgium Campus De Vest (aula 2)
- **Registration:**
 - deadline: march 25th 2013
 - www.thomasmore.be/symposiumSHP
- **Registration Fee** (Incl. VAT):
per person: 75 € - per student: 25 €
- **Industry Fair:**
Industry and companies are given the opportunity to present their products and or services at a poster session in the vicinity of the main symposium aula. (The fee for non-members of the IWT-TETRA Zon-Warm project consortium is 500€ (605 € incl. VAT)).

Companies (both members and non-members of the IWT-TETRA Zon-Warm project consortium) can get in contact with the symposium organization at the address stated below to obtain further information.

- **Symposium language:** English

