2nd International Solar District Heating Conference

Solar District Heating has got increased interest all over Europe in recent years. District heating is one major approach to increase the overall energy efficiency in urban areas, either by refurbishment of existing systems or by the introduction of new systems in existing or new building establishments and solar heat is available in principle anywhere all over Europe.

A prevailing success factor of realized solar district heating plants is the involvement of local actors and policy makers with interest and knowledge to develop and demonstrate the new technologies.

The 2014 edition of the ‘Solar District Heating Conference’ takes place on 3 and 4 June 2014 in Hamburg. Market actors and experts are invited to gather for exchanging experience on the newest developments and networking at international level.

The conference is hosted in the halls of the old waterworks of Hamburg’s municipal energy supplier ‘Hamburg Energie’, who at the same time will present its outstanding solar district heating project ‘Energy Bunker’ in technical tours before and after the conference sessions.

For further information please visit www.solar-district-heating.eu

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Programme

Tuesday, 3 June 2014

09:00h - 12:00h Technical tour to Hamburg Energie „Energy Bunker“

12:00h - 13:00h Lunch at Hamburg Wasser, CCR

13:00h - 15:00h Opening plenary session
Opening
BMWi - Federal Ministry for Economic Affairs and Energy
Welcome address
Hamburg Energie GmbH
Solar thermal in the context of the district heating economy
AGFW - German Energy Efficiency Association for District Heating, Cooling and CHP
Introduction to the 2nd International Solar
District Heating Conference
Thomas Pauschinger, Solites
Comprehensive modelling and analysis of a future German energy system with a dominant supply from renewable energies
Hans-Martin Henning, ISE - Frauenhofer Institute for Solar Energy Systems

15:00h - 15:30h Coffee break

15:30h - 17:30h Parallel session 2.1 - Solar district heating for housing area and villages
New solar heated residential area in Vailida Heberg - Initial experiences related to system performance
Jan-Olof Dalenbäck, Chalmers University of Technology
Lessons learnt from the first French case study on the integration of a central solar plant into an existing district heating
Amandine Le Denn, Tescol
Extending the decentral district heating network in Hamburg Wilhelmsburg from the „Energy Bunker“
Joel Schrage, Hamburg Energie GmbH
Optimization of a low temperature solar district heating system by integrating space and domestic hot water loads
Reda Djebbar, Natural Resources Canada

The role of solar thermal in urban heat supply - Pilot scheme Freiburg „Gutleutmatten“ in Freiburg
Axel Oliva, ISE - Frauenhofer Institute for Solar Energy Systems
Land lease models for increased use of free land area for solar district heating in Austria
Moritz Schubert, S.O.L.I.D. GmbH
15:30h - 17:30h Parallel session 2.2 - Technical system integration of solar thermal into district heating
Experiences from national first movers in solar assisted district heating systems with seasonal storage
Dirk Mangold, Solites
Integration of solar thermal systems into district heating
Martin Heymann, Technical University of Dresden
Decentral feed-in of solar heat into district heating systems - Technical analysis of realized plants
Kai Schäfer, Solites
Energy optimization of district heating networks via direct solar heating
Rasmus Aaen, AAE N/A Consulting Engineers
Ecodistrict Villeneuve: How to develop solar energy with an existing high temperature district heating and a new low consumption housing area
Cédric Paulus, CEA INES
High temperature SDH with CPC evacuated tube collector systems in practice
Rolf Meissner, Ritter XL Solar GmbH
19:00h Dinner event

Wednesday, 4 June 2014

09:00h - 10:45h Parallel session 3.1 - Policy, market strategies and business models
Monitoring results and detailed system analysis of five Austrian solar district heating plants constructed in the framework of a national funding programme
Franz Maußner, AEE INTEC
SOLID Invest - New business model for civic investments in solar thermal systems launched
Nicole Olsacher, S.O.L.I.D. GmbH
The effect of electricity generation by renewable energies on the thermal systems launched
Evelyn Sperber, DLR - German Aerospace Center

This is not our mandate - new business models for district heating face stiff challenges
Florian Reinert, Master Thesis
District heating and low energy buildings: how to compete with low gas and electricity prices?
Emmanuel Goy, AMORCE
09:00h - 10:45h Parallel session 3.2 - Smart district heating systems including solar thermal / Sunstore 4
Almere, NL - Smart district heating from waste heat and solar thermal
Christian Engel, Thermaflex
Potentials for solar thermal smart grids in Germany
Roman Marx, ITW - University of Stuttgart
Sunstore 4 - Design of the plant
Niels From, Planenergi
Sunstore 4 - Design of pit heat storage
Morten Vang Jensen, Planenergi
Monitoring results from the Sunstore 4 smart district heating plant in Marstal, Denmark
Thomas Schmidt, Solites
10:40h - 11:15h Coffee break

11:15h - 13:00h Closing session with panel debate
Panel debate „Strategies for solar thermal in district heating“
Panelists are representatives of solar thermal and district heating industry as well as policy consultants
Conference wrap-up
Thomas Pauschinger, Solites; Heiko Huther, AGFW
13:00h - 14:00h Lunch at Hamburg Wasser, CCR

14:00h - 17:00h Technical tour to Hamburg Energie „Energy Bunker“
Enhancing district heating performances with solar thermal energy use: a case study at 2000 m above sea level
L. Degiorgis, Polytechnic of Turin
Modelling and simulation of large-scale thermal energy stores in district heating systems
Fabian Ochs, University of Innsbruck
Comparison of thermal performances of different solar collector technologies for solar district heating systems based on Solar Keymark certificates and SCEnOCalc.
Stephan Fischer, ITW - University of Stuttgart
Simulating a small scale polygeneration thermal network: numerical model and first results
Biagio Di Pietro, ENEA
Solar district heating concepts of the new residential area in Hamburg-Jenfeld, Germany
Dominik Bestenlehner, SWT - Solar and Heat Technology Stuttgart
Different technologies and an optimal integration to combined heat and power
Flemming Ulborg, Ramboill
Development outlooks for solar district heating in France
Julien Dumas, Climatix
European research school on large scale solar thermal SHINE
Chris Bales, Dalarna University
Towards district heating with 80-100 % solar fraction
Daniel Trier, Planenergi

Poster presentations

- Modelling and simulation of large-scale thermal energy stores in district heating systems
  - Fabian Ochs, University of Innsbruck
- Monitoring results of Germany’s largest solar district heating plant with seasonal thermal energy storage in Craitshoe
  - Dan Bauer, ITW - University of Stuttgart
- Comparison of thermal performances of different solar collector technologies for solar district heating systems based on Solar Keymark certificates and SCEnOCalc.
  - Stephan Fischer, ITW - University of Stuttgart
-Animating a small scale polygeneration thermal network: numerical model and first results
  - Biagio Di Pietro, ENEA
- Solar district heating concepts of the new residential area in Hamburg-Jenfeld, Germany
  - Dominik Bestenlehner, SWT - Solar and Heat Technology Stuttgart
- Different technologies and an optimal integration to combined heat and power
  - Flemming Ulborg, Ramboill
- Development outlooks for solar district heating in France
  - Julien Dumas, Climatix
- European research school on large scale solar thermal SHINE
  - Chris Bales, Dalarna University
- Towards district heating with 80-100 % solar fraction
  - Daniel Trier, Planenergi
- Enhancing district heating performances with solar thermal energy use: a case study at 2000 m above sea level
  - L. Degiorgis, Polytechnic of Turin

Towards district heating with 80-100 % solar fraction
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