

10:30h - 11:00h Coffee break

11:00h - 12:30h **Parallel session 5.1: RES and solar district heating in your country - new projects**

Chair: Mathieu Eberhardt, Rhônâlpénergie-Environnement

Chateaubriant: The first French large scale solar plant connected to existing district heating
Amandine Le Denn, TECSOL

Solar district heating of Varese
Results and experiences from the first year of operation
Zeno Benciolini, SDH Energy

Construction of the renewable energy hybrid demonstration site using seasonal storage in Jincheon, Korea
Dong-Won Lee, Korea Institute of Energy Research

Planning and operation of two small SDH plant as test site: comparison between flat plate and vacuum collectors
Luca Degiorgis, Politecnico of Torino

11:00h - 12:30h **Parallel session 5.2: Advanced SDH systems II**

Chair: Morten Vang Bobach & Per Alex Sørensen, PlanEnergi

Germany's largest Solar District Heating System with Seasonal Thermal Energy Storage in Crailsheim - Monitoring Results and Future Potentials
Roman Marx, ITW University of Stuttgart

Operational analysis and detailed monitoring results of measurements taken from large-scale solar thermal plants integrated into district heating
Samuel Knabl, AEE INTEC

First year of operating the world's largest solar heating plant and the world's largest seasonal storage
Flemming Ulbjerg, Ramboll Energy

Monitoring results from large-scale solar thermal plants with long term storage in Marstal, Braedstrup and Dronninglund, Denmark
Thomas Schmidt, Steinbeis Research Institute Solites

12:30h - 14:00h Lunch break and Exhibition

14:00h - 15:00h **Closing session**

Chair: Kim Behnke, DDHA

Panel debate: Solar District Heating - a reliable and feasible option for DH operators?

Torben Sørensen, VKR group
Johan Frey, Dronninglund District Heating
Helle Richelieu, DDHA customer
Robert Werner, Hamburg Institute
Alexis Pellat, Regional Council of Auvergne-Rhône Alpes
Heiko Huther, AGFW – German Heat and Power Association

Wrap-up of the conference, SDH Highlights to come?
Thomas Pauschinger, Steinbeis Research Institute Solites
Per-Alex Sørensen, PlanEnergi

15:00h - 17:00h **Exhibition still open**

Exhibition:

During the conference, professionals from the Solar District Heating sector will present their products and services in the exhibition area. As participant, you will have the opportunity to get in direct contact with manufacturers from all Europe and discover the products on the market.

Sponsors:



This event has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691624, from the Danish Energy Development and Demonstration Programme EUDP and from Dansk Fjernvarme.

Organized by:



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SDH

solar district heating

4th International Solar District Heating Conference

21 and 22 September 2016, Billund, Denmark



Program

Wednesday, 21 September 2016

08:00h - 09:00h Registration

09:00h - 10:30h Opening plenary session

Welcome and introduction to the conference

Welcome address by Kim Behnke, DDHA

Heating and Cooling in the European Energy Transition
Paul Voss, Euroheat & Power

Solar District Heating in Future Smart Energy Systems,
Henrik Lund, Aalborg University

Aims and activities of the SDHp2m project team
Thomas Pauschinger, Steinbeis Research Institute Solites

10:30h - 11:00h Coffee break

11:00h - 13:00h **Parallel session 2.1: RES and solar district heating in your country - market aspects**

Chair: Riccardo Battisti, Ambiente Italia

Solar and biomass for Italian communities: analysis of two case studies,
Alice Dénarié, AIRU

Enhancing energy efficiency of biomass district heating by integration of thermal solar energy
Wolfgang Jilek, Government of Styria

Solar district heating in Baden-Württemberg – Overcoming barriers and market introduction within the project SolnetBW
Oliver Miedaner, Steinbeis Research Institute Solites

Feasibility for SDH in region Västra Götaland
Jan-Olof Dalenbäck, CIT Energy management AB

Monitoring results for the two firsts solar plants on district heating network in France: Balma Gramont and Juvignac
Fabrice Renaude, Cofely Services GDF Suez

Small, modular and renewable district heating & cooling grids for communities in South-Eastern Europe
Dominik Rutz, WIP Renewable Energies

11:00h - 13:00h **Parallel session 2.2: SDH components / plant performance**

Chair: Cédric Paulus, CEA INES

Thermal performance of a novel combined solar heating plant with parabolic trough collectors and flat plate collectors
Zhiyong Tian, Technical University of Denmark

Development and test results for liners for tightening of large scale water storages
Per Alex Sørensen, PlanEnergi

The right choice of pre-insulated pipe system for big scale solar district heating networks
Peter Jorsal, Logstor

Variations of yearly thermal performance of Danish solar heating plants - measured and calculated
Simon Furbo, Technical University of Denmark

Online Monitoring of SDH system performance
Daniel Trier, PlanEnergi

13:00h - 14:30h Lunch break and Exhibition

14:30h - 15:00h Introduction to technical tour

15:00h - 18:00h **Technical tour: SDH plant of Gram**
The solar thermal systems consists of 3556 collectors representing a total area of 44.800 m². The annual heat production is 20.800 MWh, which covers 60% of the annual heat demand.



19:00h Dinner at Knights' restaurant at Legoland

Thursday, 22 September 2016

08:00h - 09:00h **Parallel session 3.1: Industry session**

Chair: Jan-Olof Dalenbäck, Chalmers University

Aalborg CSP, Alfa-Laval, Heliac Aps, SavoSolar, Climalife Thermaflex and KBB Kollektorbau, Shandong Linuo Paradigma Co. Ltd.

08:00h - 09:00h **Parallel session 3.2: Poster session**

Chair: Laure Deschaintre, Steinbeis Research Institute Solites

New CPC based flat plate collector for solar heating plants
Bengt Perers, Technical University of Denmark

Decentralised integration of solar thermal plants into an existing district heating system
Daniel Beckenbauer, Technische Hochschule Ingolstadt

Local approach to renewable district heating: case study Croatia
Borna Doracic, University of Zagreb

Shine doctoral school – results from six PHD studies on large scale solar thermal
Frederico Bava, Technical University of Denmark

Precise measurement of collector arrays for the development of new test methods to increase planning reliability
Moritz Schubert, S.O.L.I.D.

Integration of solar thermal systems in existing district heating systems
Carlo Winterscheid, Chalmers University of Technology

Feed-in from distributed solar thermal plants in district heating systems
Gunnar Lennermo, Energieanalys AB

09:00h - 10:30h **Technical workshop 4.1: Starting an SDH project**

Moderator: Rasmus Bundegaard Eriksen, DDHA: ERFA group for solar thermal

Business plan for SDH and consumer ownership,
Per Kristensen, kristensen consult ApS, former manager of Brædstrup District Heating

Permission procedures, landscape integration and environmental impact analysis
Simona Weisleder, Hamburg Institute

Feedback and lessons learned on the implementation of SDH in Denmark
Rasmus Bundegaard Eriksen, DDHA: ERFA group for solar thermal

Risk Assessment of Large Solar Thermal Installations
Robert Werner, Hamburg Institute

Open discussion with all speakers

09:00h - 10:30h **Parallel session 4.2: Advanced SDH systems I**

Chair: Dirk Mangold, Steinbeis Research Institute Solites

Technical challenges for solar thermal plants with decentralized feed-in into district heating networks and deduced plant concept for the experimental feed-in station in the SWD.SOL project
Kai Schäfer, Steinbeis Research Institute Solites

Solar District Heating and Heat Pump at Rye Kraftvarmeværk (Rye CHP)
Morten Vang Bobach, PlanEnergi

BIG Solar Graz: Solar District Heating in Graz - 500,000 m² for 20% solar fraction
Robert Söll, S.O.L.I.D.

Concept, construction and first measurement results of two decentralized feed-in substations
Karin Rühling, Technical University of Dresden