



IEA SHC Task 66:

Solar Energy Buildings

Integrated solar energy supply concepts
for climate-neutral buildings and
communities for the "City of the Future"

Industry Workshop No 4

**“Solar energy supply concepts for buildings and districts
in an international context”**

9th October 2023, Graz, Austria

13:30 – 17:30 h, Franziskaner Kloster Franziskanerplatz 4, 8010 Graz

Manager Task 66: Harald Drück, IGTE, University of Stuttgart, Germany
Email: harald.drueck@igte.uni-stuttgart.de

Leader Subtask A of Task 66: Frank Späte, Technical University of Applied Sciences Amberg-Weiden
Email: f.spaeete@oth-aw.de

Local Host: Manuela Eberl, Thomas Ramschak and Michael Gumhalter from AEE INTEC, Austria

Task 66 (Solar Energy Buildings) – Industry Workshop No 4

Intro to Dr. Harald Drück

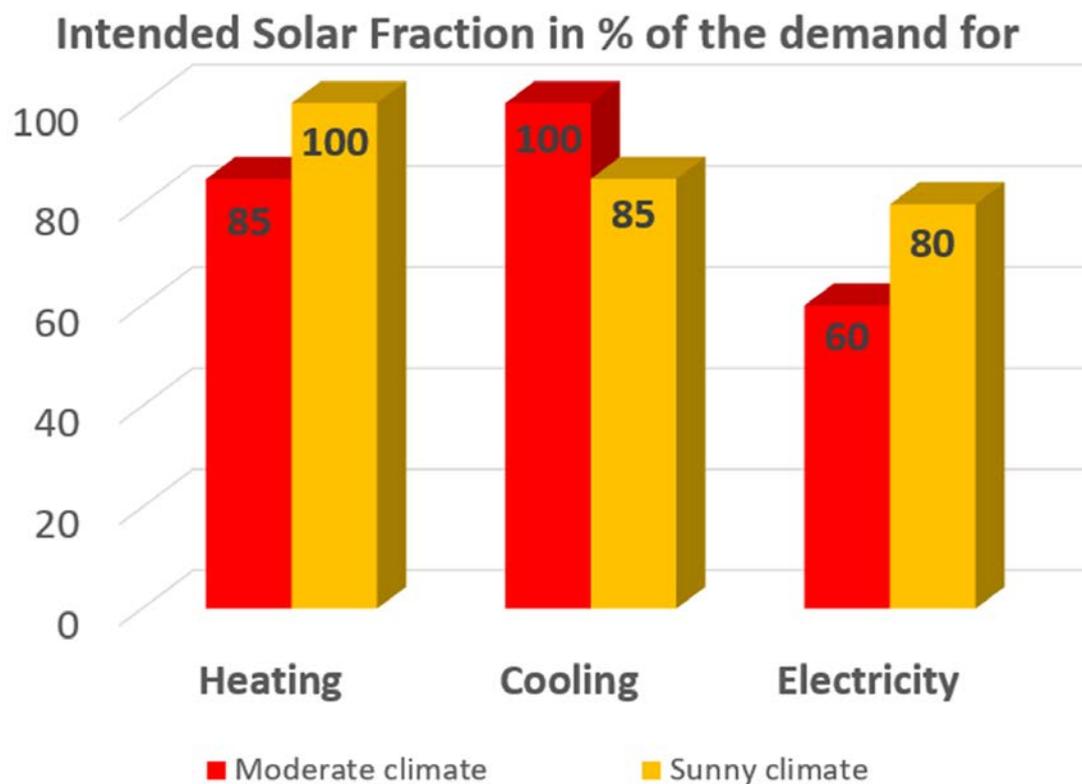
- Working at University of Stuttgart, Institute for Building Energetics, Thermotechnology and Energy Storage (IGTE), former ITW, for +25 years, as research coordinator, leader “sustainable buildings and smart city concepts” and head “solar testing”
- Main field of activities: solar thermal, heat storage, Smart Cities, solar and energy efficient buildings, ..
- Head of SWT (Solar- und Wärmetechnik / Solar- and Heat Technology Stuttgart)
- Chairman of the Global Solar Certification Network
- Adjunct Professor at Rajagiri School of Engineering & Technology (RSET), Rajagiri, Kochi, India
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Task 66 (Solar Energy Buildings) – Industry Workshop No 4

Scope (1/2)

- IEA SHC Task 66 focuses on the development of economic and ecologic energy supply concepts for buildings with high solar fractions of
at least 85% of the heat demand,
100% of the cooling demand
and
at least 60% of the electricity requirements
for moderate, e.g. central European climate conditions.



Task 66 (Solar Energy Buildings) – Industry Workshop No 4

Scope (2/2)

- Target: Households and e-mobility of multi-storey residential buildings, single buildings and building blocks or distinguished parts of a city (communities) for both, new buildings and the comprehensive refurbishment of existing buildings
- Key aspects:
 - focus on the overall energy supply of the building:
This means
 - heat,
 - cold and
 - power
 - synergetic consideration of the interaction with grid infrastructures (electricity and heat) in the sense of bidirectional flexibility

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Subtasks of Task 66 – “new” structure

Subtask A: Boundary Conditions, KPIs, Definitions and Dissemination

Lead: Frank Späte, OTH-AW, Germany

Subtask BC: New and existing buildings and building blocks / communities

Lead: Elsabet Nielsen, DTU, Denmark

Co-Lead: Xinyu Zhang and Wenbo Cai, China Academy of Building Research (CABR), Beijing, China

Subtask D: Current and future technologies and components

Lead: Thomas Ramschak, AEE INTEC, Austria

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Fröling Web Portal | IEA SHC || Projects | IEA SHC || Task 66 || Solar Energ

https://task66.iea-shc.org

SHC TASK 66

ABOUT PROJECT | MEETINGS / EVENTS | NEWS | PUBLICATIONS | RESOURCES

TASK 66
Solar Energy Buildings

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Task Information
DURATION
July 2021 — June 2024

OPERATING AGENT
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GERMANY
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IEA SHC – The world's largest *Solar Heating and Cooling* research network

<https://task66.iea-shc.org/>

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Program

13:30 – 14:00 **Welcome and Presentation of Task 66 and General Overview
Sol4City Project**

Dr. Harald Drück, Task Manager of Task 66, Institute for Building Energetics,
Thermotechnology and Energy Storage (IGTE), University of Stuttgart, Germany
Thomas Ramschak, AEE INTEC, Austria

14:00 – 14:30 **The electrical grid load of Solar Energy Buildings – Effects of
generation and storage technologies**

Michael Gumhalter, AEE INTEC , Austria

14:30 – 15:00 **Battery storage systems in residential buildings – Technological and
economic possibilities**

Franklin Simon von KREISEL Electric, Austria

15:00 – 15:30 *Coffee Break*

Break until 15:30 hrs (CEST)



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- 15:30 – 16:00 **Solar heat and ice storages in cold district heat networks for heating and cooling - operation and control aspects**
Ralf Dott, Viessmann Climate Solutions SE, Germany
- 16:00 – 16:30 **Solar energy application of zero carbon building parks in China**
Dr. Boyuan Wang, China Academy of Building Research, Beijing, China
- 16:30 – 17:00 **Solar energy supply concepts for buildings and districts**
Elsabet Nielsen, Technical University of Denmark, Denmark
- 17:00 – 17:30 **Final discussion and closing**
Dr. Harald Drück, Task Manager Task 66, IGTE, University of Stuttgart, Germany

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... from 19:00 **Optional: joint dinner at Gasthaus Lendplatz!**
Lendplatz 11, 8020 Graz, Austria www.lendplatzl.at/gasthaus
Registration for the dinner is kindly requested until 30th of Sept. 2023 to
Mrs. Manuela Eberl , E-mail: m.eberl@aee.at

→ Please note that the dinner has to be paid by the participants themselves!



Source: <https://www.pngwing.com/en/free-png-barjk>



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