



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 3

**"Demonstration projects of Solar Energy Buildings around the globe"**

**7<sup>th</sup> February 2023**

1:00 – 3:30 pm CET (Central European Time, UTC+1)

virtual: <https://unistuttgart.webex.com/unistuttgart/j.php?MTID=m6f15c529a5fc16e698eca7bd04f6d28a>

The objective of IEA SHC Task 66 is the development of economic and ecologic feasible energy supply concepts with high solar fractions. Task 66 addresses single-family buildings, multi-story residential buildings, building blocks and communities, with regard to new and existing buildings.

**Manager Task 66:** Harald Drück, IGTE, University of Stuttgart, Germany  
Email: [harald.drueck@igte.uni-stuttgart.de](mailto: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](mailto:f.spaeete@oth-aw.de)

# Task 66 (Solar Energy Buildings) – Industry Workshop No 3

## Welcome to another virtual meeting 😊



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[https://stock.adobe.com/de/images/online-meeting-vector-illustration-design-woman-with-laptop-at-remote-work-conference-virtual-video-study-or-education-business-planning-flat-cartoon-people-discussion-home-office-concept/368743621?as\\_campaign=fmigration2&as\\_channel=dpcft&as\\_class=brand&as\\_source=ft\\_web&as\\_camtype=acquisition&as\\_audience=users&as\\_content=closure\\_asset-detail-page](https://stock.adobe.com/de/images/online-meeting-vector-illustration-design-woman-with-laptop-at-remote-work-conference-virtual-video-study-or-education-business-planning-flat-cartoon-people-discussion-home-office-concept/368743621?as_campaign=fmigration2&as_channel=dpcft&as_class=brand&as_source=ft_web&as_camtype=acquisition&as_audience=users&as_content=closure_asset-detail-page)

## Task 66 (Solar Energy Buildings) – Industry Workshop No 3

### 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)
- Board Member of Solar Heat Europe / ESTIF
- Chairman of the Global Solar Certification Network
- Adjunct Professor at Rajagiri School of Engineering & Technology (RSET), Rajagiri, Kochi, India
- .....



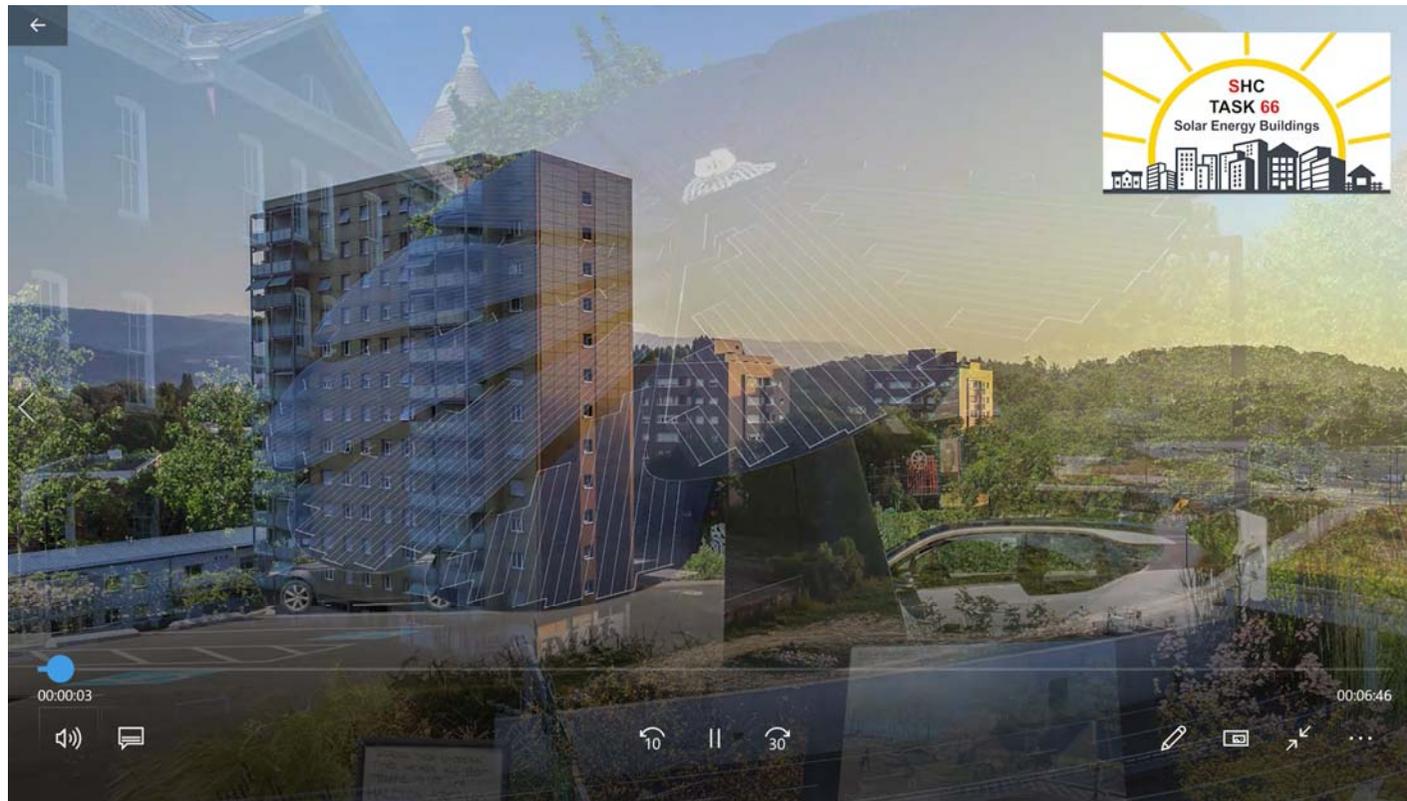
## Task 66 (Solar Energy Buildings) – Industry Workshop No 3

### Scope

- IEA SHC Task 66 focus 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 central European climate conditions
- 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 aspect:
  - 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

# Task 66 (Solar Energy Buildings) – Industry Workshop No 3

## Task 66 Video



# Task 66 (Solar Energy Buildings) – Industry Workshop No 3

The screenshot shows a web browser window with three tabs: 'Fröling Web Portal', 'IEA SHC || Projects', and 'IEA SHC || Task 66 || Solar Energ'. The address bar shows 'https://task66.iea-shc.org'. The website header features the 'SHC TASK 66' logo and navigation links: 'ABOUT PROJECT', 'MEETINGS / EVENTS', 'NEWS', 'PUBLICATIONS', and 'RESOURCES'. The main content area has a large banner image of a modern building with solar panels on the roof. Overlaid on the banner is the text 'TASK 66 Solar Energy Buildings' and a red 'LEARN MORE →' button. To the right, a red sidebar contains the following information:

**Task Information**  
DURATION  
July 2021 — June 2024

**OPERATING AGENT**  
Dr. Harald Drück  
GERMANY  
[harald.drueck@igte.uni-stuttgart.de](mailto:harald.drueck@igte.uni-stuttgart.de)

At the bottom of the banner, a red bar contains the text: 'IEA SHC – The world's largest Solar Heating and Cooling research network'.

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

# Task 66 (Solar Energy Buildings) – Industry Workshop No 3

## Program

- 1:00 **Welcome, Introduction and Presentation of Task 66** ✓  
Dr. Harald Drück, Task Manager of Task 66, Institute for Building Energetics, Thermotechnology and Energy Storage (IGTE), University of Stuttgart, Germany
- 1:15 **Typical zero-carbon building renovation project based on BIPV technic in China**  
Dr. Boyuan Wang, China Academy of Building Research, China
- 1:35 **Solar energy communities in Aarhus, Denmark**  
Elsabet Nielsen, Technical University of Denmark, Denmark
- 1:55 **Examples of multi-family houses with high solar fractions in Germany**  
Franziska Bockelmann, Steinbeis-Innovationszentrum energieplus, Germany
- 2:10 *Break*
- 2:30 **Examples of typical Solar Energy Buildings in India**  
Dr. Arun Kumar Vaiyapuri, STEAG Energy Services (India) Pvt. Ltd., India
- 2:50 **Monitoring results of two highly solar powered apartment buildings with flat-rent in Germany - residential concept of the future?** Lukas Oppelt, TU Bergakademie Freiberg, Germany
- 3:10 **Solar energy buildings with energy active facades**  
DI Thomas Ramschak, AEE - Institute for Sustainable Technologies, Austria
- 3:30 *End*

## Task 66 (Solar Energy Buildings) – Industry Workshop No 3



**LINK FOR PARTICIPANTS OF INDUSTRY WORKSHOP NO 3:**

**<https://www.surveymonkey.com/r/T66-workshop>**

**Break ....  
... until 14:30 hrs (CET)**



**&**



**Link for Evaluation of Task 66 Industry-Workshop No 3**

**<https://www.surveymonkey.com/r/T66-workshop>**

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**Leader Subtask A of Task 66:** Frank Späte, Technical University of Applied Sciences Amberg-Weiden  
Email: [f.spae@oth-aw.de](mailto:f.spae@oth-aw.de)

**End of day .....**  
**... have a nice evening**



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