

Invitation to the Webinar on “Digitalization for optimizing integrated district heating systems”

Digital technologies are believed to make the whole energy system smarter, more efficient, and reliable and to boost the efficiency and the integration of more renewables into the system. In the future, digital applications might enable district energy systems to fully optimise their plant and network operation while empowering the end consumer. Further on, digital technologies are a key enabler for sector coupling and hybridisation of the energy system. On the other hand, challenges need to be tackled, such as data security and privacy as well as questions about data ownership.

Aim of the Webinar is

- to discuss the role of digitalisation within a future CO₂ free and integrated energy system,
- to present activities, challenges and solutions from the industry perspective,
- to get an impression of current commercial solutions,

The webinar is directed towards:

- District heating network operators and energy suppliers
- Digitalization solution providers (soft- and hardware, consultancies)
- R&D institutes and universities
- Policy makers, energy authorities and associations

Date: Wednesday, 3rd November 2021, from 10:00 to 17.00 (separated in three blocks)

Attendees may attend free of charge; a link for the online participation will be send out after registration

Registration is required by 1st November 2021 (end of working day) via this Link:

<https://www.iee.fraunhofer.de/iea-dhc-webinar>

Webinar organization: Dietrich Schmidt, dietch.schmidt@iee.fraunhofer.de +49 561 804-1871
Ralf-Roman Schmidt, Ralf-Roman.Schmidt@ait.ac.at +43 664 235 19 01

This Webinar is held in the framework of two international cooperation programs: the IEA DHC Annex TS3 „Hybrid Energy Networks“ and the IEA DHC Annex TS4 “Digitalisation of District Heating and Cooling“. More information at <https://www.iea-dhc.org/the-research/annexes/2018-2024-annex-ts4/> and <https://www.iea-dhc.org/the-research/annexes/2017-2021-annex-ts3>

Agenda

Block I – policy framework and the big picture of digitalisation of energy infrastructures

9:30 *Testing of technical connections*

10:00 **Introduction into the Webinar** (*Dietrich Schmidt, Fraunhofer IEE*)

National R&D perspectives for the digitalisation of the energy sector

(Stefan Krengel, Project Management Juelich)

The role of digitalisation with a focus on buildings and district heating

(Ksenia Petrichenko, IEA Paris)

The European framework (*Matteo Pozzi, DHC+ / Euroheat & Power*)

11:00 *End of Block I*

Block II – Digitalization of district heating systems

12:00 *Testing of technical connections*

12:30 **Introduction into the IEA DHC Annex TS4 project** (*Dietrich Schmidt, Fraunhofer IEE*)

The utility perspective on digitalisation of district heating

(Julia Westerweck, Wärme Hamburg)

Digitalisation solutions for heat infrastructures (*Oddgeir Gudmundsson, Danfoss*)

Digitalisation potentials: Research test facility for innovative DH systems (*Anna Kallert, Fraunhofer IEE*)

Interactive session and Q&A to all presenters

14:00 *End of Block II*

Block III – Hybrid energy systems

15:00 *Testing of technical connections*

15:30 **Introduction into the IEA DHC Annex TS3 project** (*Ralf-Roman Schmidt, AIT*)

The TSO perspective on sector coupling and district heating (*Anders Bavnhøj Hansen, Energinet*)

advantages of district heating in an integrated transmission and generation expansion planning (*Henrik Schwaeppe, rwth-aachen*)

Interactive session and Q&A to all presenters

17:00 *End of Block III*

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