SÉMINAIRE ÉNERGIE – ENVIRONNEMENT
Conférences 2022 – 2023

Risk minimization for decarbonizing heating networks via network temperature reductions: opportunities and challenges.
Experience from Austria and outlook.

Ralf-Roman Schmidt
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Jeudi 30 mars à 17h15

**Université de Genève – 66 boulevard Carl-Vogt, 1205 Genève
Salle 1 (rez-de-chaussée)**

Conférence en présentiel suivie d'un apéritif

Diffusion en direct avec Zoom : https://unige.zoom.us/j/65489922494
ID de réunion : 654 8992 2494
Code secret : 234543

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L'orateur

Ralf-Roman Schmidt is a senior research engineer and is working at the AIT (Austrian Institute of Technology) since June 2009, where he is responsible for the development and management of national and international projects in the field of district heating and integrated energy systems.

His research priorities are decarbonization strategies and sector coupling. He holds key positions in international networks (e.g. IEA DHC ExCo, RHC-ETIP) and received his PhD-degree in the field of thermo-fluid dynamics in 2013.

La conférence

Many large urban district heating networks (DH) are heavily depending on gas. Since the use of renewable fuel alternatives will be very limited in the future, and the connection of more customers to the DH networks can be expected, significant amounts alternative heat sources such as heat pumps, waste heat, solar and geothermal energy will be required to secure and decarbonize the DH supply.

This presentation highlights the opportunities and challenges related to the optimization of the building stock in terms of return temperatures and flexibilities, network hydraulics, bi-directional operation, the integration of seasonal storages, as well as consumer involvement and business models. Also, related uncertainties regarding energy prices, availability of alternative heat sources and seasonal storages as well as implementation of retrofitting and optimization activities will be discussed.