Smart Energy Systems

4th Generation District Heating, Electrification, **Electrofuels and Energy Efficiency**

21-22 September 2021, Copenhagen

#SESAAU2021







Welcome

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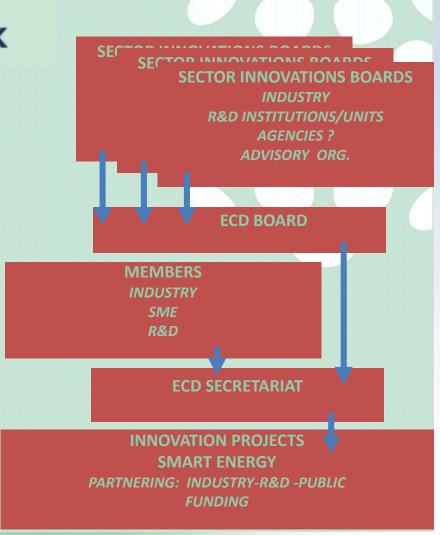


Energy Cluster Denmark

A national platform for innovation in the energy sector

We are shaped by the industry and driven by the need for one strong focal point for innovation. It is absolutely crucial to ensure a globally competitive Danish energy sector.

We are already working with 400 members and a project portfolio of DKK 800 million, and







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160+70 Participants



22 different countries



124 presentations

















Plenary Program



09:00-11:00	1st plenary session chaired by Professor Poul Alberg Østergaard ROOM: SQUARE 1
09:00-09:10	Professor Henrik Lund: Opening speech
09:10-09:30	Keynote (online): Claudia Kemfert, Professor and Head of Department at DIW, Germany: Corona crisis: Chance for decentralized energy system transformation with full supply from RE
09:30-09:40	Questions and debate
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Online Session Program





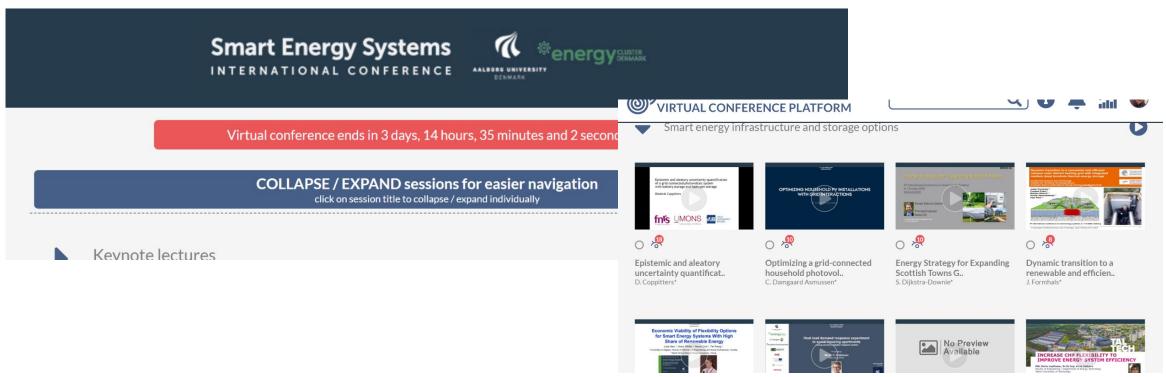




























7th International Conference on Smart Energy Systems 21-22 September 2021 #SESAAU2021

Please help us make the online conference as lively as possible:

- Ask questions
- Give comments
- Give recommendations
- Vote for the rewards





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Online registration desk is open during the conference:

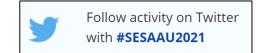
Send an email to:

sesconference@plan.aau.dk



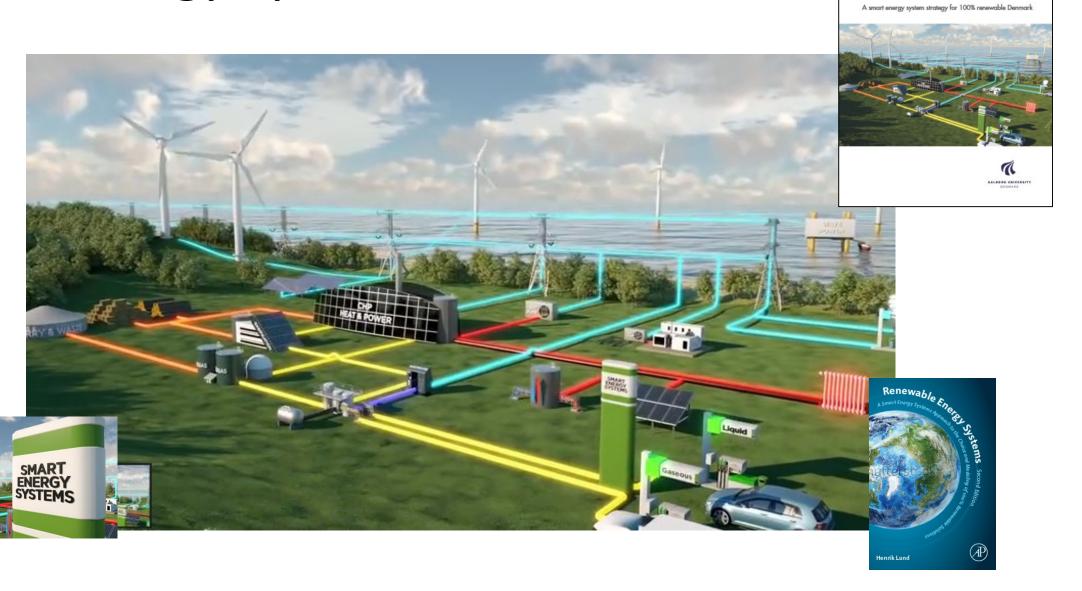


Smart Energy Systems



Executive Summary

IDA's Energy Vision 2050







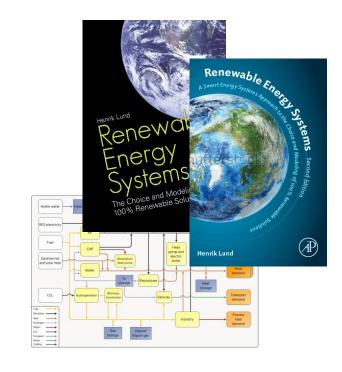




Smart Energy Systems

The key to cost-efficient 100% Renewable Energy

- A sole focus on renewable electricity (smart grid) production leads to electricity storage and flexible demand solutions!
- Looking at renewable electricity as a part smart energy systems including heating, industry, gas and transportation opens for cheaper and better solutions...





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Power-to-Heat

Power-to-Gas Power-to-Transport



with #SESAAU2021





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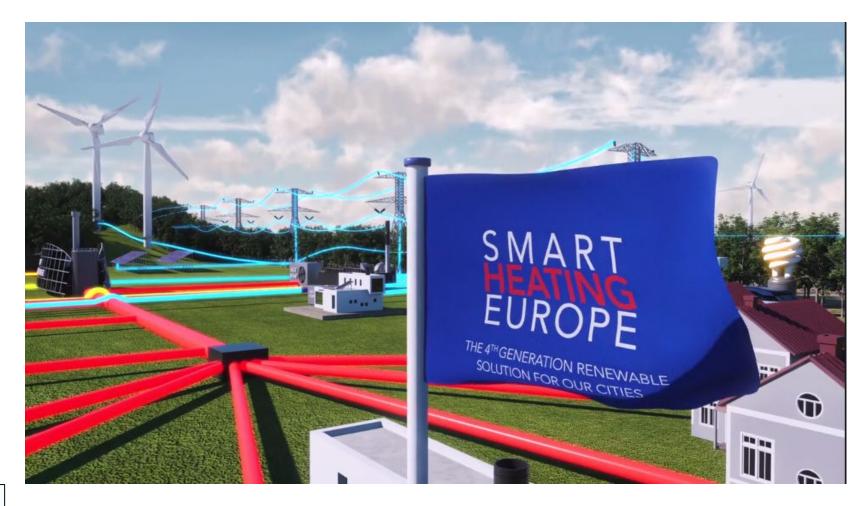






Smart Heating Europe

















Paper-flow: 4 Special Issues

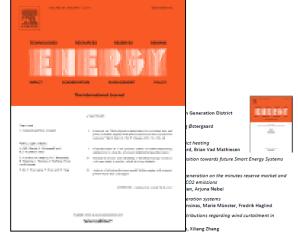


Smart energy systems and 4th generation district heating Poul Alberg Østergaard, Henrik Lund, Brian Vad Mathiese

Comprehensive Assessment of the Potential for Efficient District Heating and Cooling and for High-Efficient Cogeneration in Austria Richard Büchele, Lukas Kranly, Andreas Müller, Marcus Hummel, Michael Hartner, Yvonne Deng,

A genetic algorithm technique to optimize the configuration of heat storage in DH networks Amru Rizal Razani, Ingo Weidlich

Smart energy systems applied at urban level: the case of the municipality of Bressanone-Brixen Matteo Giacomo Prina, Marco Cozzini, Giulia Garegnani, David Moser, Ulrich Filippi Oberegger, Roberto Vaccano Wolfram Snarber



Decentralized substations for low-temperature district heating with no Legionella risk, and low return temperatures

Xiaochen Yang, Hongwei Li, Svend Svendsen

Replacing critical radiators to increase the potential to use low-temperature district heating – A case study of 4 Dainsh single-family houses from the 1930s Dorte Skaarup Østergaard, Svend Svendser

System dynamics model analysis of pathway to 4th generation district heating in Latvia Jelena Ziemele, Armands Gravelsins, Andra Blumberga, Girts Vigants, Dagnija Blumberga Complex thermal energy conversion systems for efficient use of locally available biomass

Current and future prospects for heat recovery from waste in European district heating systems:

Urban Persson, Marie Münster

Mapping of potential heat sources for heat pumps for district heating in Denmark

Industrial surplus heat transportation for use in district heating
J.NW. Chiu. J. Castro Flores. V. Martin. B. Lacarrière

European space cooling demands Sven Werner

Rasmus Lund Urban Persson

Optimal planning of heat supply systems in urban areas Valery A. Stennikov, Ekaterina E. lakimetc

Ringkøbing-Skjern energy atlas for analysis of heat saving potentials in building stock Stefan Petrović. Kenneth Karlsson



al Conference on Smart Energy Systen eating"

A special issue of *Energies* (ISSN 1996-1073).

Deadline for manuscript submissions: 15 January 2019

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Special Issue Editor

Guest Editor

Assoc. Prof. Karl Sperling

The Technical Faculty of IT and Design, Department of Planning, Sustainable Energy Planning Research Group, Aalborg University, Aalborg, Denmark

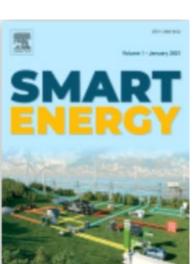
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Interests: public regulation; community energy; smart energy systems; district heating; renewable energy sources















New Journal: Smart Energy



Home > Journals > Smart Energy



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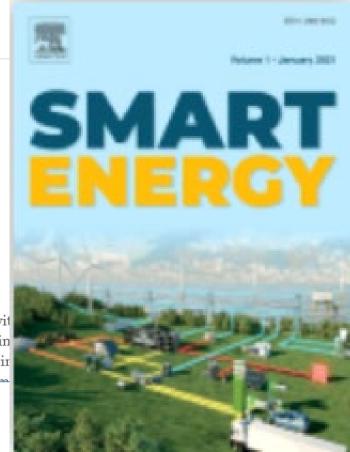
Professor Henrik Lund Aalborg University, Aalborg, Denmark

Professor Brian Vad Mathiesen

Aalborg University, Aalborg, Denmark

A companion journal to ENERGY, the international journal

Smart Energy is an international, multi-disciplinary journal wit smart energy systems design, analysis, planning and modellin aims to be a leading platform and an authoritative source of interest to the green transformation of energy supply and demonstrated transformation of energy supply and demonstra







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Before you submit your paper, please:

- Read carefully the author guidelines of the journal in question and relate your paper to the scope of the journal
- Make sure to frame your paper within the conference topic Smart Energy Systems
- Make sure to discuss your findings in relation to the previous Special Issues of the conference













Awards for Best Presentation (Remember to nominate...!)















13-14 September 2022 in Aalborg





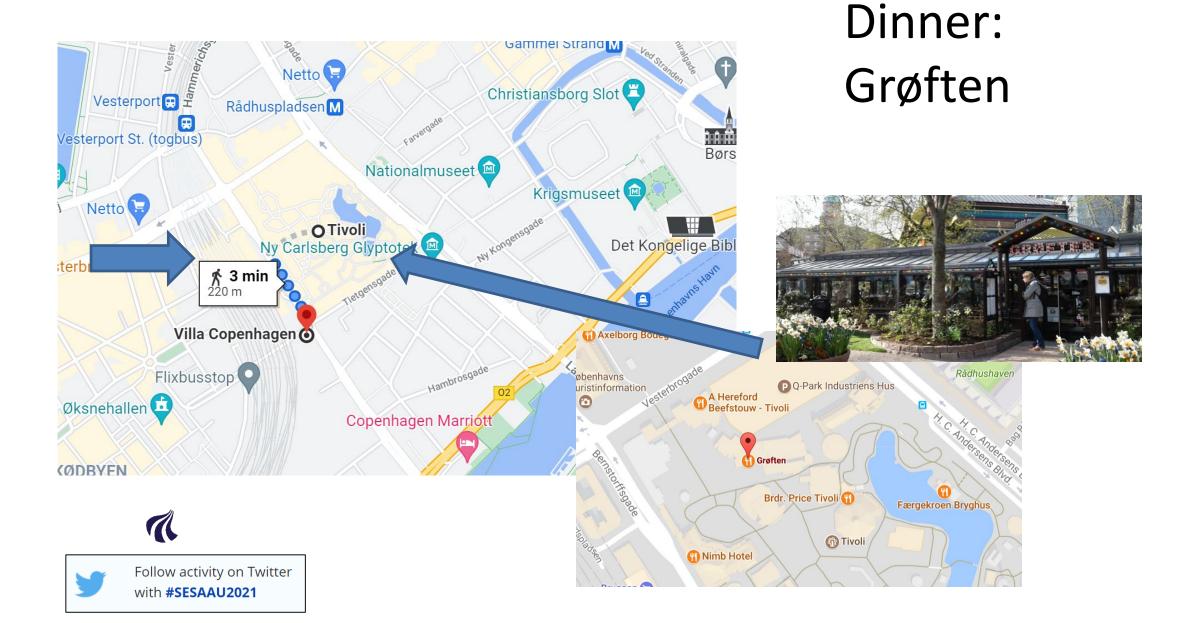












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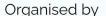
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