

Tuesday 22 September 2026

08:00-09:00	Registration and breakfast
09:00-10:45	Plenary opening session: Integrated carbon capture solutions and global greenhouse gas thresholds - Chaired by Poul Alberg Østergaard
09:00-09:15	Henrik Lund and Glenda Napier: Opening and Welcome to SESAAU2026
09:20-09:50	Keynote Michael Lundgaard Thomsen, Director at Aalborg Portland: CCS is not a technology fix - it is a real climate solution for Aalborg Portland
09:55-10:25	Keynote Neven Duić, Professor at the University of Zagreb: Process carbon emissions - storing, utilizing or offsetting within global carbon emission constraints
10:25-10:45	Debate

10:45-11:15 Coffee and networking in sponsor area

11:15-13:00 Parallel sessions

Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
Room: Europahallen	Room: 1.01 Banen	Room: 1.02 Havnen	Room: 1.03 Flyveren	Room: 1.04 Fakultetet	Room: Fjorden 1.07	Room: Tunnellen 1.08	Room: 1.09 Værket
4th generation district heating concepts, future district heating production and systems	CCUS and PtX technologies and the production and use of electrofuels in future energy systems	Smart energy systems tools and methodologies	Renewable energy sources and waste heat sources including PtX for district heating	4th generation district heating concepts, future district heating production and systems	Smart energy systems tools and methodologies	Energy efficiency in the electricity sector, buildings, transport and industry	Geographical information systems (GIS) and mapping of demands and resources
Chair: Peter Jorsal	Chair: Henrik Lund Frandsen	Chair: Kristina Lygnerud	Chair: Elisa Guelpa	Chair: Ingo Leusbrock	Chair: Ruta Vanaga	Chair: Paula Ferreira	Chair: Bernd Möller
Session keynote Anna Cadenbach, Fraunhofer: Advancing 4GDH: Integrated Simulation and Experimental Evaluation of Six Transformation Pathways	Session keynote Christian Breyer, LUT University: Power-to-X implementation in energy system modelling: Status and outlook	Session keynote Bram van der Heijde, VITO: Developing and Testing Supervisory Control for District Heating and Cooling with Virtual Demonstrators	Session keynote Benedetto Nastasi, Tor Vergata University of Rome: Switching to Renewable Fuels in District Cooling for Buildings and Data Centers	Session keynote Mads Sylvest Eegholm, Green Thermo: Deep geothermal energy to efficiently deliver heat to district heating	Session keynote Matteo Giacomo Prina, EURAC: How Climate Change Reshapes the Alpine optimal Energy Mix?	Session keynote Marie Münster, DTU: Assessing planetary boundaries of a future Danish energy system	Session keynote Els van der Roest, Municipality of Utrecht: Does it fit? The spatial impact of different sustainable heating strategies
Carolín Ayase, TU Darmstadt: Open-Source Data Processing Pipeline for Modeling Spatially Resolved Urban Heat Sector Decarbonization Paths	Alisson Julio, AAU: Municipal System-Level Assessment of CO ₂ Availability for eSAF production under Smart Energy Constraints	Siddharth Sasidharan, TU Delft: Control-Oriented Modelling for Flexible Low-Temperature District Heating and Cooling Networks	Sam Roozbehani, DTU: Integrated Planning and Control of Eco Industrial Clusters for Frequency Service Provision	Stefan Retschitzegger, AEE / Urban Persson, HH: Integration of deep geothermal heat in the district heating system of Lviv	Juan Rodriguez Santiago, Fraunhofer: Optimal Design and Control of Heat Pump Systems under Dynamic Energy Conditions in European Residential Buildings	Simon Müller, THI: Economic feasibility of waste heat integration from high-power charging stations for electric trucks in district heating networks	Franz Mauthner, AEE: CoSpatial Heat: A GIS-based framework for integrated heat planning and gas grid decommissioning
Arthur Lefebvre, UC Louvain: Must-haves beyond linear heat density for cost-effective fourth-generation district heating systems	Thibaut Wissocq, CEA Liten: Quantifying the Flexibility Potential of District Heating Networks for France's 2035 Electrical Grid	Moritz Zuschlag, RWTH: Analysis of the flexibility potential of monoenergetic and hybrid energy hubs for third- and fourth-generation district heating	Armin Ardehali, SDU: Competing for electrons or molecules? Infrastructure planning in an eco-industrial cluster	Helena Gailan, Geological Survey of Estonia: Integrating medium-deep geothermal energy system into district heating in Estonia: experience from pilot stations towards to smart systems	Jakob Fuchsberger, BEST: A Framework for Cooperative, Optimization-based Control of Coupled Energy Systems	Urban Žvar Baškovič, University of Ljubljana: Prosumer Activation in Sector-Coupled Energy Systems: Heavy-duty EV Charging as a System Flexibility Challenge for a multi-sector prosumer	Nicola Tait, University of Glasgow: Spatial techno-economic modelling of heat decarbonisation solutions for urban energy communities to utilise local heat resources
Valerie Fehst, Preventio: Zone-Level Leak Detection in District Heating Networks Using Multi-Scale Return-Flow Regime Learning	Helena Thougard Jensen, AAU: Integrating CCUS into Municipal-level Energy System Analysis for a Carbon Neutral Society	François Lédée, CEA-Liten: Experimental comparison of smart controllers on a small district heating network	Joel Bertilsson, Chalmers: From Power Demand to Heat Supply: Optimizing Data Center Placement in the Nordics	Sajedeh Roustaei, Politecnico di Milano: A Multi-Criteria Framework for Comparing District Heating Configurations in Shallow Geothermal SGDHC Systems	Milad Mohammadyari, VITO: On the Convergence of ADMM-Based Distributed Optimization for Nonconvex Demand Response in District Heating Systems	Amela Ajanovic, TU Wien: Energy Efficiency as a Key Enabler of Cost-Effective Transport Electrification	Abdulraheem Salaymeh, HAWK: Multidimensional Evaluation of Heat Source–Demand Matching and Techno-Economic Trade-Offs in Heat Transition Pathways
Agnes Engelter, TU Darmstadt: Enabling the flexible transition from 3rd to 4th generation district heating using dual pipe transmission lines	Fabio Sala, RSE: Role of Hydrogen and CCUS in the Italian Power System by 2050: Scenario Results and Implications for Flexibility and Security	Valentin Kaisermayer, BEST: Harnessing Building Energy Flexibility with Model Predictive Control	Luis Enrique Ruiz Perdomo, ITE: Hybrid Modelling of Data Center Energy Consumption and Waste Heat as a Basis for Integration into Smart Energy Systems	Natalia Kozłowska, University of Liège: Integration of a Geothermal Ground Temperature Response in Thermal Network Optimization	Jasper Müller, TU Darmstadt: Development of Operational Strategies for a Hybrid 4GDH Network using Dynamic Thermo-Hydraulic Simulation	Jiahe Chu, THI: Design and Evaluation of a Sector-Coupled Energy Management System for Supermarkets as Flexible EV Charging Hubs	Ulrich Ganslmeier, TU München: Noise-Aware GIS Mapping of Air-to-Air Heat Pumps: Potential for Replacement of Individual Gas Floor Heating in Munich
Helge Averfalk, HH: Ranagård: Novel low-temperature heat distribution technology evaluation		Ben Spoek, RWTH: Stochastic Consumer-Level MPC for Reliable Operation of District Heating Networks with Transport Delays	Sabine Mönch, Fraunhofer: Waste Heat Integration in Low-Temperature Urban District Heating: An Energy System Modelling Case Study on Heating and Cooling Interactions	Leopold Riedl, TU Wien: Spatial Representation of District Heating: Granularity Levels and Aggregation Methods for Energy System Modeling	Ali Soleimani, MAU: Towards trust in smart hybrid HVAC control systems from stakeholders' perspective	Daniel Muschick, BEST: Practical Aspects of Predictive Control of Electric Vehicle Charging Parks as Flexibility Providers	Ingela Becker-Grupe, HAWK: Systematic GIS-based analysis for integration of multiple low-temperature waste heat sources into an existing district heating network

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TENTATIVE PROGRAMME AALBORG

13:00-14:15 Lunch and networking							
14:15-15:45 Parallel sessions							
Session 9 Room: Europahallen	Session 10 Room: 1.01 Banen	Session 11 Room: 1.02 Havnen	Session 12 Room: 1.03 Flyveren	Session 13 Room: 1.04 Fakultetet	Session 14 Room: Fjorden 1.07	Session 15 Room: Tunnelen 1.08	Special session Room: 1.09 Værket
Energy efficiency in the electricity sector, buildings, transport and industry	4th generation district heating concepts, future district heating production and systems	Smart energy systems tools and methodologies	Planning and organisational challenges for smart energy systems and energy efficiency	Smart energy systems analysis	4th generation district heating concepts, future district heating production and systems	Smart energy components, infrastructures and storage options	Special session on Nordic Hydrogen Hubs
Chair: Anna Volkova	Chair: Vittorio Verda	Chair: Robin Wiltshire	Chair: Dagnija Blumberga	Chair: Stefan Holler	Chair: Anders N. Andersen	Chair: Per Lundqvist	Chair: Iva Ridjan Skov
Session keynote Oddgeir Gudmundsson, Danfoss: Case analysis: Energy efficiency of building level versus flat level ventilation-based heat supply systems for low-energy buildings	Session keynote Henrik Lund Frandsen, DTU: Robust and cost effective seasonal storage solutions for the energy system	Session keynote Dietrich Schmidt, Fraunhofer: Realizing autocommissioning and optimizing substation operations through machine learning	Session keynote Kristina Lygnerud, LTH: Characteristics of low temperature district heating business models	Session keynote Dmytro Zhuk, NUOS: Resilient Power Systems under Uncertain Conditions: Distributed Generation and Smart Microgrids in Ukraine	Session keynote Uffe Schleiss, Grundfos: Hydronic Balancing Revisited: How Decentralised Pumping Unlocks ΔT in Legacy Networks	Session keynote Jacek Leszczyński, AGH University of Krakow: Multiscale CAES technologies – an overview	Session keynote Rasmus Bo Bramstoft Pedersen, DTU: Simple or too simple: Representing Power-to-X infrastructure in large-scale sector-coupled energy systems models
Kenneth Hoffmann, GE: Affordable and Decarbonized District Heating with Heat Pumps	Tripti Singh Rajput, Chalmers: TIMES-Based Evaluation of Seasonal Thermal Energy Storage in District Heating System	Plamen Bogdanov, RWTH: Improving substation operation for fifth generation district heating and cooling networks: MPC development and evaluation in dynamic simulation	Daniel Møller Sneum, E-nerd: Customers accepting extended connection times, while keeping inflation and costs down – a district heating customer business model that does it all?	Alessandro Mati, AAU: Advancing climate resilience of energy systems through increased spatial resolution	Alireza Etemad, University College Dublin: Machine learning surrogate modelling for hydronic balancing in buildings connected to Thermal Source Networks	Dominik Gryboś, AGH University of Krakow: Real-Time Optimization of the Discharge Process Control Strategy in Micro-CAES Systems for Adaptive Power Flexibility in Micro/Nano-Grids	Yousef Pourjamal, LUT University: Subnational Dynamics of the Energy Transition: A NUTS2-Level Assessment of Renewable Energy Systems in Nordic and Baltic Regions
Pier Paolo Brancaleoni, University of Parma: Evaluating the Flexibility Potential of High Temperature Heat Pumps for Defossilized District Heating	Femke Janssen, TNO: Efficiently combining a seasonal heat storage, heat pump and electricity dynamics for a more sustainable HT-DHN	Laura Block, RWTH: Semi-Automated Fault Detection in District Heating Substations Using Machine Learning	Erik Schlahn, HHL: Financing and cooperation models for utilities in integrated energy systems – a European taxonomy	Philip Brandt, HAWK: Comparison of the Power Outage Resilience of District Heating and Heat Pumps in a Residential District	Jan Eric Thorsen, Danfoss: Economic case of building level cascaded substation concepts	Jan Markowski, AGH University of Krakow: Energy Efficiency Analysis of a Multi-Piston Expander for smart Micro-CAES System	Frederik Fristed, DTU: Impact of large scale infrastructure commitments under uncertainty in transport and energy systems
Rachel Parziale, ISFH: Monitoring Heat Pumps in 4 Residential Climate Districts in Germany	Hrvoje Dorotić, EIH: Techno-economic and environmental assessment of underground seasonal thermal energy storage integration in the Zagreb district heating network	Maarten Blommaert, KU Leuven: Hybrid Electric Heater Substations for Cost-Effective, Low-Temperature District Heating Networks: A Physics-Based Optimization Approach	Søren Djørup, NORCE: Economic impacts of thermal energy storage at the national level	Andrea Mackenzie, Fairheat: Innovative Load Testing Methodologies to ensure Efficient Operation of Energy Centres in Complex Developments	Rahul Mohandasani Karuvungal, RWTH: Simulative Analysis and KPI-Based Selection of Rule-Based Control Strategies in 4th Generation District Heating Substations	Adrien Vautrin, Bengt Dahlgren AB: Reduce-Order Model of a Cavern Thermal Energy Storage based on Semi-Analytical Approach	Frederik Dahl Nielsen, AAU: Hydrogen uptake in the Nordic energy transition: national profiles, infrastructure implications, and system level impacts
Avril Bullock, Fairheat: Installation to Operation: Quality Assurance of Dwelling Heat Pumps on Ambient Loop Networks	Natalie Peracha, THI: Techno-economic assessment of seasonal thermal energy storage in low-exergy district heating networks	Christian Holm Christiansen, DTI: Semantic modelling of DHC substations: lessons from a multi-ontology exercise within IEA DHC Annex T59	Caroline Stiel, DIW Berlin: Green Heat, Higher Prices? The Price Effects of Decarbonizing District Heating in Germany		Mohammad-Reza Kolahi, University of Geneva: How Decentralization Cuts Emissions in District Thermal Networks	Melisa Gounesher, KTH: Reduced-Order Modelling of Molten Salt Thermal Energy Storage for Energy System Optimization	
15:45-16:15 Coffee break							

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TENTATIVE PROGRAMME AALBORG

16:15-17:45 Parallel sessions						
Session 17	Session 18	Session 19	Session 20	Session 21	Session 22	Special session
Room: 1.01 Banen	Room: 1.02 Havnen	Room: 1.03 Flyveren	Room: 1.04 Fakultetet	Room: Fjorden 1.07	Room: Tunnellen 1.08	Room: 1.09 Værket
Planning and organisational challenges for smart energy systems and energy efficiency	Smart energy components, infrastructures and storage options	Smart energy systems tools and methodologies	4th generation district heating concepts, future district heating production and systems	Institutional and organisational change, energy communities and positive energy districts	4th generation district heating concepts, future district heating production and systems	Special session on Fault Detection and Diagnosis in DH systems – applications from the OptiHeat+ project
Chair: Christian Breyer Session keynote Brian Vad Mathiesen, AAU: Designing the EU27 heat market for 2050: 55% district heating enabled by Energy Efficiency 2.0	Chair: Benedetto Nastasi Session keynote Paula Ferreira, University of Minho: Estimating the Temperature Elasticity of Electricity Demand	Chair: Dietrich Schmidt Session keynote Michel Speetjens, TUE: Capturing 3D unsteady heat transfer in variable flow variable-temperature district-heating pipeline networks by a compact pipe model	Chair: Jan Eric Thorsen Session keynote Elisa Guelpa, Politecnico di Torino: Insights into renewable energy integration in an existing district heating system	Chair: Anna Cadenbach Session keynote Christian Bjerrum Jørgensen, PlanEnergi: Skills Development for the Future of District Heating and Cooling. A Key Enabler for the Green Energy Transition	Chair: Jacek Leszczyński Session keynote Paweł Wojnarowski, AGH University of Krakow: Urban geothermal energy as a component of smart energy systems: multi-use subsurface solutions for local heat decarbonization	Chair: Dirk Vanhoudt Session keynote Jad Al Koussa, VITO: Optiheat+ - A research project on fault detection and diagnosis in district heating
Giulia Spirito, Politecnico di Milano: Supporting compliance with the Energy Efficiency Directive: a strategic planning tool for District Heating systems	Antonia Queitsch, DLR: Market Behavior of Thermal Energy Storage Power Plants in an Agent-Based Electricity Market Model	Jorrit Heylen, KU Leuven: How to Design Heating Networks? A Benchmark of Optimal Pipe Sizing and Design Guidelines, and Exploring the Potential of Peak Temperature Boosting	Wen Liu, UU: A global survey of techno-economic potential of sustainable district heating	Per Alex Sørensen, PlanEnergi: Skills4DHC. Qualification and recruitment of professionals for the district heating and cooling sector	Kai Droste, RWTH: Simulative Investigation of an Optimized Shallow Geothermal Borehole Layout in a 4th-Generation District Heating Network	Hoda Kamali / Ivan Verhaert, University of Antwerp: Classifying Operational Faults in CHP-Integrated Collective Heating Systems: A Multi-Site Analysis
Alessandro Capretti, AZA: A district heating decarbonisation plan: behind and beyond the scenes	Chia-Ling Yang, TU Darmstadt: Automatic Frequency Restoration Reserve Provision from District Heating Systems with Large-Scale Heat Pumps: A Feasibility Assessment	Mazarine Roquet, University of Liège: Use of digital twins to help the design of thermal networks: a case study application	Md Asiful Islam, OVGU: Techno-economic evaluation of power-to-heat integration for a 30% renewable share in an existing fossil-based German district heating system	John Kapetanakis, HAWK: Aligning skill development in higher education with workforce needs in the district heating and cooling sector: Insights from a European survey	Nirav Patel, TU Wien: Multi-Year Optimization of District Heating Systems with High-Temperature Borehole Thermal Energy Storage	Senne Van Minnebruggen, University of Antwerp: Systematic Fault Characterization in District and Building Heating Systems: Methodology and Challenges
Alexander Meisinger, OTH Regensburg: Bridging the green hydrogen gap: From carbon revenues to Power-to-X markets in Europe	Johan Dalgren, KTH: The impact on DHS due to temperature losses in decentralized Thermal Energy Storage and how to reduce peak production at discharge	Felix Hallett, Fairheat: Re-evaluating Cooling Demand Diversity to Optimise Residential CHW Network Design	Niklas Denter, THI: Electricity-Driven or Heat-Driven? A Comparative Techno-Economic Analysis of Renewable Sector-Coupled District Heating Systems in Germany	Matteo Pozzi, Optit: The DHC Academy Alliance: Scaling the Value Chain through a Permanent Education & Training Marketplace	Dmitry Romanov, HAWK: Cost-effectiveness of coaxial medium-deep borehole thermal energy storages for various waste heat sources and district heating temperatures	Nicola Frizziero, DTU: Characterization of air-related fault signatures in water-based radiator systems for low temperature operations
Osamu Kunitomo, Tokyo Gas: A Study on Technology Generations the District Heating and Cooling in Japan - The Necessity for a Definition of Technology Generations in Japan	Anas Algarei, University of Edinburgh: A TESPy-Based District Cooling Modeling Tool for Energy Flexibility Characterization in Sector-Coupled Energy Systems	Santiago Valencia-Cañola, UNAM: Physical and thermo-economic feasibility of a variable-geometry ejector refrigeration system	Robert Puknat, ISFH: Heat Pumps vs. Direct Electric Heating: Impact of PV Direct Marketing on the Techno-Economics of Low-Energy Homes	Cosima Amanda Wörle, Fraunhofer: Towards Standardised Documentation of Experimental Research in District Heating and Cooling	Arash Farnam, VITO: A Hierarchical Control Framework for District Heating Networks with BTES Using Dynamic Programming and MPC	Stefanie Fonken, VITO: Fault detection and prioritization of substations in a residential district heating network - A demonstration case

TENTATIVE PROGRAMME AALBORG

Wednesday 23 September 2026

09:00-10:45 Parallel sessions

Session 24	Session 25	Session 26	Session 27	Session 28	Session 29	Session 30
Room: Europahallen	Room: 1.01 Banen	Room: 1.02 Havnen	Room: 1.04 Fakultetet	Room: Fjorden 1.07	Room: Tunnellen 1.08	Room: 1.09 Værket
4th generation district heating concepts, future district heating production and systems	Electrification and sector coupling of transport, heating and industry	Smart energy systems tools and methodologies	Smart energy systems tools and methodologies	Planning and organisational challenges for smart energy systems and energy efficiency	Energy efficiency in the electricity sector, buildings, transport and industry	Smart energy systems analysis
Chair: Matteo Giacomo Prina	Chair: Henrik te Heesen	Chair: Ralf-Roman Schmidt	Chair: Mirko Morini	Chair: Arjuna Nebel	Chair: Oddgeir Gudmundsson	Chair: Marie Münster
Session keynote Vittorio Verda, Politecnico di Torino: Integration of heat pumps and short/long term thermal storage units for the transition of district heating networks	Session keynote Phillip Dale, University of Luxembourg: Future assessment of electrical generation and grid constraints in Luxembourg	Session keynote Ali Mohammad Nia, AAU: Sustainable Sector Integration and Multi-Objective Optimization of Heat Symbiosis by Real-Time Digital Twin Technology	Session keynote Andra Blumberga, RTU: Designing climate neutrality policies for the energy sector: insights from a system dynamics model	Session keynote Morten Jordt Duedahl, DBDH: The road to 100% renewables: Why practical detours and incremental change can outperform perfect but limited solutions	Session keynote Hanne Kauko, SINTEF: Cross-sector integration of buildings, transport, and industry for peak-load reduction in low-carbon energy systems	Session keynote Bernd Möller, EUF: Biogas infrastructure network analysis for methanation in Schleswig-Holstein
Johannes Pelda, HAWK: Model-based dimensioning of a heat pump and a thermal storage in a CHP-based district heating system and their heat generation pathways towards 2040	Heidi Kirppu, VTT: Electrified District Heating as a System Balancing Resource in Nordic Power Systems: Modelled Outlooks and Observed Realities in Finland	Fiona Feurstein, FHV: Assessing Steady-State and Transient Methods for Thermal Simulation of District Heating Networks	Nyasha Grecu, AIT: What is the optimal solution? Methods for considering uncertainty in district heating decarbonization	Frederike Kuperjans, RWTH: "Planning better when knowing less" - Optimizing Adaptive Transition Pathways for Distributed Multi-Energy Systems Under Deep Uncertainty	Michael Frank, TU Darmstadt: From Robust to Antifragile Industrial Energy System Planning: Comparative Assessment of Optimization Approaches under Uncertainty	Thomas Elliot, AAU: The hidden environmental and systemic trade-offs of Power-to-Gas
Felix Mergenhausen, DIW Berlin: Large-Scale Heat Pumps for the Decarbonisation of District Heating: A case study in the German region of Lüneburg	Mathias Berg Rosendal, DTU: Prioritising Flexibility Options in Future Energy Systems	Nicholas Tedjosantoso, HAW Hamburg: Towards Scalable District Heating Network Simulation: A Tensor-Based Multilinear Approach	Kadri Männasoo, TalTech: Evaluating the Introduction of a Two-Part District Heating Tariff: Evidence from a Small Network in Estonia	Florian Labaude, University of Strasbourg: Integrate local energy systems in regional strategies – Exploring the multilevel dimension in the case of the Eurometropolis of Strasbourg, France	Jonas Götz, TU Darmstadt: An Integrated Modeling Approach for Transformation Measures in Industrial Energy Systems	Diamantis Almpantis, LTH: Sector-Coupled Green Hydrogen Microgrid Optimization: Deep Reinforcement Learning vs. MILP under Forecast Uncertainty
Mohd Basit Wani, TalTech: Impact of Integrating Local Renewable Heat Sources with District Heating in Non-Residential Sector: A Case Study in Tallinn, Estonia	Buster Bukart Hansen, SDU: A Bi-Level Sector Coupling Framework for Multi-Actor Energy Systems: Integrating Techno-Economic Optimisation and Cooperative Game Theory	Maria Pedrosa, INEGI: Decision-Support Tool for Waste Heat Recovery from Power Transformers for Grid and Heat Decarbonization	Igor Krupenski, TalTech: Motivation Tariffs in District Heating: Assessing Efficiency Gains in an Urban Network in Estonia	Bennet Köppchen, TU Köln: Comparing Germany's Pathways to a Decarbonised Heat Supply: A Meta-Analysis of Transition Scenarios for the Heating Sector in the Future Energy System	Martin Grasenack, HAW Hamburg: An integrated agent-based modelling framework for increasingly electrified industrial sites	Bianca Helbach, RWTH: Component Model Selection to Balance Complexity and Accuracy for Operational Optimization of Multi-Energy Systems
Fabian Feuchter, THI: Characteristics and Yield Potential of Vertical Bifacial Agri-Solar Thermal Systems for Dual Land Use and District Heating in Europe	Benjamin Freischlad, TU Darmstadt: Exploring price-based demand response based on variable emission factors of electricity in sector-coupled energy systems	Henrique Monteiro, INEGI: Three Dimensional Periodic CFD Analysis of Transient Heat Transfer in CORE Type Transformer Disc Windings	Lukas Kranzl, TU Wien: Modeling market adoption of building-side measures for district heating temperature reduction: the role of subsidies and motivational tariffs	Marie-Emilie Ingen Housz, City of Rotterdam: A data driven approach to a realistic urban heat transition in Rotterdam	Xin Bin, LTH: Energy Optimization of Heat Exchanger Network under Fouling and Cleaning Constraints in Multiproduct Liquid Food Process	
Daniele Anania, EURAC: Including operational constraints in modelling of district heating decarbonization scenarios	Daniel Zinsmeister, Stadtwerke München: Data-Driven City-Scale Archetypes for Munich's Residential and Non-Residential Building Stock		Felix Till Schattmann, ISFH: Accelerating Building Energy Simulations with Neural Network Surrogate Models	Miguel Chang, IFE: Looking within and beyond energy system modelling - A survey on perceived model biases, model coupling, and integrating non-energy perspectives	Jenni Leinonen, Aalto University: Economics and CO2 Emission reductions of Electrifying Industrial Steam Production in Volatile Electricity Markets	

10:45-11:15 Coffee and networking in sponsor area

Wednesday 23 September 2026

TENTATIVE PROGRAMME AALBORG

11:15-13:00 Parallel sessions						
Session 31	Session 32	Session 33	Session 34	Session 35	Session 36	Session 37
Room: Europahallen	Room: 1.01 Banen	Room: 1.02 Havnen	Room: 1.04 Fakultetet	Room: Fjorden 1.07	Room: Tunnellen 1.08	Room: 1.09 Værket
Smart energy systems tools and methodologies	Planning and organisational challenges for smart energy systems and energy efficiency	Institutional and organisational change, energy communities and positive energy districts	4th generation district heating concepts, future district heating production and systems	Smart energy systems tools and methodologies	Smart energy components, infrastructures and storage options	Electrification and sector coupling of transport, heating and industry
Chair: Hanne Kauko Session keynote Ralf-Roman Schmidt, AIT: From Data to Value: Quantifying the Economic Benefits of Digitalisation and the Role of Data Spaces in District Heating Networks	Chair: Morten Jordt Duedahl Session keynote Ingo Leusbrock, AEE Intec: Quality management of district heating and cooling DHC systems - A prerequisite for sustainability, affordability and transparency	Chair: Anders M. Odgaard Session keynote Lisa Hjerrild, SDU: From Rights to Responsibilities: Citizens in the 2026 EU Energy Package	Chair: Lukas Kranzl Session keynote Jake Adamson, Fairheat: Retrofitting heating and hot water measures in a 1970s UK operational courts building to enable connection to a low carbon district heating network	Chair: Igor Krupenski Session keynote Morten Karstoft Rasmussen, Kamstrup: From Smart Meter Data to Action: Software-Defined Alarms for District Heating Optimization	Chair: Johannes Pelda Session keynote Reinhard Haas, TU Wien: On future market prospects of electricity storage	Chair: Urban Persson Session keynote Anders N. Andersen, EMD: Adding hydrogen storage radically changes design of e-Methanol plants
August Brækken, SINTEF: The role of building heating conversion in regional energy system transitions	Aadit Malla, TU Wien: Planning cooling adoption: From cost-optimal pathways to real-world barriers	Jonathan Hachez, VUB: Strategic Uncertainty Modeling for Citizen Energy Communities: A Gaussian KDE Approach to Revenue Planning and Negotiation Support	Charlie Dawson, Fairheat: Decarbonising a hot water system in a 19th century City Hall building with UK listed building status to enable a district heating network connection	Hossein Alimohammadi, TalTech: Thermodynamic Optimization of Heat Source Placement in District Heating Networks for Reduced Mixing Losses	Ilia Skorniakov, Aalto University: Industrial behind-the-meter battery storage profitability under future price volatility: 2030 Nordic-Baltic analysis	Mohammad Hossein Fouladfar, LTH: Valuing Hydrogen Waste Heat in District Heating
Paula Oberfeier, Fraunhofer: Time Series Aggregation Methods for Municipal Energy System Modeling: Application to District Heating Systems with Renewable Heat Sources	Dagnija Blumberga, RTU: Costs of Energy Measures Delays	Marko Keber, Free University of Bozen-Bolzano: Strengthening Smart Energy Systems Through Flexibility Mechanisms: Comparative Insights from Southern European Case Studies	Christopher Fielding, Fairheat: Bridging the Performance Gap: Applying Co-Heating Analysis to Retrofit Design	Julian Plautz, HAWK: Methodology for allocating network losses to consumers, applied at the Göttingen North Campus	Johanna Roth, AEE: An exergetic comparison of distinct Carnot Battery concepts for industrial applications	Anton Achhammer, OTH Regensburg: Integrating Geothermal Potential and Hydrogen Imports in PyPSA-Earth: A Case Study of Japan's Energy Transition
Jelena Ziemele, Riga Energy Agency: Wastewater Heat Utilization in Riga: Challenges and Opportunities	Yijie Su, Aalto University: Modeling the Diffusion of Residential Demand-side Management Technologies with Building Performance and Heterogeneous Consumer Preferences	Mirko Morini, University of Parma: Impact of incentive allocation in optimal design of Renewable Energy Communities	Nikolaus Diez, TU Wien: A multi-period optimization approach for renovation pathways in building portfolios under data scarcity and uncertainty	Tanel Kirs, TalTech: Measuring District Heating Network Effect on District Cooling Network Losses in an Urban Environment	Stefan Bordinh, ISFH: Interpretable neural network prediction of electricity demand in a single-family home system with heat pump, photovoltaic and battery storage	Thor Alexis Sazon, IFE: Energy system implications of planned hydrogen production in Norway
Hesham Ali, TalTech: Using a marine digital twin to identify promising seawater heat pump applications in Baltic Sea district energy systems	Jonathan Vogl, KIT: BehaviorGPT: Generating Household Activity and Mobility Schedules for Residential Energy Demand Modeling	Ann-Kathrin Rathmann, Osnabrück University of Applied Sciences: Economic Potential of Energy Sharing for SMEs in German Commercial Areas – An Oemof Optimization Approach	Arjuna Nebel, TH Köln: Analysing Temporal Heat Demand Effects of Building Retrofitting on Energy Systems: Endogenous Modeling of Germany's Building Sector in PyPSA-Eur	Enrico Ghidoni, DTU: Techno-economic and hydraulic feasibility evaluation of energy saving strategies for reduced circulation heat losses in domestic hot water systems	Evi Monique Kasper, HS Offenburg: Measurement-Based Load Disaggregation for State Reconstruction in Medium-Voltage Grids with Limited Observability	Ilona Malmipuro, Aalto University: Electricity market impacts of renewable hydrogen production and implications on the profitability of flexible generation in Finland in 2030
Nicolas Oliver Marx, AIT: Flexible Biochar Production at Small-Scale Biomass-Based District Heating Plants: A GIS-Based Techno-Economic Feasibility Assessment	Nermina Abdurahmanovic, Fraunhofer: Modelling and simulation of user behaviour and gamification effects on heat pump flexibility in multifamily buildings		Ruta Vanaga, RTU: Adaptive Thermal Coupling Control Layer in PCM–Aerogel Building Façades for Enhanced Energy Performance	Jan Westphal, TUHH: A control strategy for reducing heat losses in summer operation of a district heating network	Sylvia Wüst, HS Offenburg: Assessing the Impact of Dynamic Operating Envelopes on Future Low-Voltage Grids	Natasa Markovska, MANU: From Demonstration to Replication: Scaling Heat Pump Deployment in Existing Buildings through Install.res
13:00-14:00 Lunch and networking						
14:00-16:15 Plenary closing session: Geopolitics, autonomy and Europe's energy future - Chaired by Brian Vad Mathiesen						
14:00-14:30 Keynote Jan Rosenow, Professor at the University of Oxford: Electroefficiency: Conversion Efficiency, the Primary Energy Fallacy, and the Demand-Side Case for Electrification						
14:35-15:05 Keynote Ditte Brasso Sørensen, Deputy Director at Think Tank Europa: What's holding back the Energy Union?						
15:05-15:25 Debate						
15:30-15:45 DHC+ Student Award Ceremony						
15:50-16:05 Best Presentation Award Ceremony by Poul Alberg Østergaard						
16:05-16:15 Henrik Lund and Hans Jørgen Brodersen: Closing						