4th Generation District Heating concepts, future district heating production and systems

Agnes Engelter	Enabling the flexible transition from 3rd to 4th generation district heating using dual pipe transmission lines
Alireza Etemad	Machine learning surrogate modelling for hydronic balancing in buildings connected to Thermal Source Networks
Anna Cadenbach	Advancing 4GDH: Integrated Simulation and Experimental Evaluation of Six Transformation Pathways
Arash Farnam	A Hierarchical Control Framework for District Heating Networks with BTES Using Dynamic Programming and MPC
Arjuna Nebel	Analysing Temporal Heat Demand Effects of Building Retrofitting on Energy Systems: Endogenous Modeling of Germany's Building Sector in PyPSA-Eur
Arthur Lefebvre	Must-haves beyond linear heat density for cost-effective fourth-generation district heating systems
Carolin Ayasse	Open-Source Data Processing Pipeline for Modeling Spatially Resolved Urban Heat Sector Decarbonization Paths
Charlie Dawson	Decarbonising a hot water system in a 19th century City Hall building with UK listed building status to enable a district heating network connection
Christopher Fielding	Bridging the Performance Gap: Applying Co-Heating Analysis to Retrofit Design
Daniele Anania	Including operational constraints in modelling of district heating decarbonization scenarios
Dmitry Romanov	Cost-effectiveness of coaxial medium-deep borehole thermal energy storages for various waste heat sources and district heating temperatures
Elisa Guelpa	Insights into renewable energy integration in an existing district heating system
Fabian Feuchter	Characteristics and Yield Potential of Vertical Bifacial Agri-Solar Thermal Systems for Dual Land Use and District Heating in Europe
Felix Mergenhagen	Large-Scale Heat Pumps for the Decarbonisation of District Heating: A case study in the German region of Lüneburg
Femke Janssen	Efficiently combining a seasonal heat storage, heat pump and electricity dynamics for a more sustainable HT-DHN
Helena Gailan	Integrating medium-deep geothermal energy system into district heating in Estonia: experience from pilot stations towards to smart systems
Helge Averfalk	Ranagård: Novel low-temperature heat distribution technology evaluation
Henrik Lund Frandsen	Robust and cost effective seasonal storage solutions for the energy system
Hrvoje Dorotić	Techno-economic and environmental assessment of underground seasonal thermal energy storage integration in the Zagreb district heating network
Jake Adamson	Retrofitting heating and hot water measures in a 1970s UK operational courts building to enable connection to a low carbon district heating network
Jan Eric Thorsen	Economic case of building level cascaded substation concepts
Jerik Catal	Decarbonizing Existing Districts – what are the options for Anergy Networks
Johannes Pelda	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
Kai Droste	Simulative Investigation of an Optimized Shallow Geothermal Borehole Layout in a 4th-Generation District Heating Network
Leopold Riedl	Spatial Representation of District Heating: Granularity Levels and Aggregation Methods for Energy System Modeling
Mads Sylvest Eegholm	Deep geothermal energy to efficiently deliver heat to district heating
Md Asiful Islam	Techno-economic evaluation of power-to-heat integration for a 30% renewable share in an existing fossil-based German district heating system
Mohammad-Reza Kolahi	How Decentralization Cuts Emissions in District Thermal Networks
Mohd Basit Wani	Impact of Integrating Local Renewable Heat Sources with District Heating in Non-Residential Sector: A Case Study in Tallinn, Estonia
Natalia Kozlowska	Integration of a Geothermal Ground Temperature Response in Thermal Network Optimization
Natalie Peracha	Techno-economic assessment of seasonal thermal energy storage in low-exergy district heating networks
Niklas Denter	Electricity-Driven or Heat-Driven? A Comparative Techno-Economic Analysis of Renewable Sector-Coupled District Heating Systems in Germany
Nikolaus Diez	A multi-period optimization approach for renovation pathways in building portfolios under data scarcity and uncertainty
Nirav Patel	Multi-Year Optimization of District Heating Systems with High-Temperature Borehole Thermal Energy Storage
Paweł Wojnarowski	Urban geothermal energy as a component of smart energy systems: multi-use subsurface solutions for local heat decarbonization
Rahul Mohandasan Karuvingal	Simulative Analysis and KPI-Based Selection of Rule-Based Control Strategies in 4th Generation District Heating Substations
Robert Puknat	Heat Pumps vs. Direct Electric Heating: Impact of PV Direct Marketing on the Techno-Economics of Low-Energy Homes
Ruta Vanaga	Adaptive Thermal Coupling Control Layer in PCM–Aerogel Building Façades for Enhanced Energy Performance
Sajedeh Roustaei	A Multi-Criteria Framework for Comparing District Heating Configurations in Shallow Geothermal 5GDHC Systems
Stefan Retschitzegger / Urban Persson	Integration of deep geothermal heat in the district heating system of Lviv
Tripti Singh Rajput	TIMES-Based Evaluation of Seasonal Thermal Energy Storage in District Heating System
Uffe Schleiss	Hydronic Balancing Revisited: How Decentralised Pumping Unlocks ΔT in Legacy Networks
Valerie Fehst	Zone-Level Leak Detection in District Heating Networks Using Multi-Scale Return-Flow Regime Learning
Vittorio Verda	Integration of heat pumps and short/long term thermal storage units for the transition of district heating networks
Wen Liu	A global survey of techno-economic potential of sustainable district heating

CCUS and PtX technologies and the production and use of electrofuels in future energy systems

Alisson Julio	Municipal System-Level Assessment of CO_2 Availability for eSAF production under Smart Energy Constraints
Christian Breyer	Power-to-X implementation in energy system modelling: Status and outlook
Fabio Sala	Role of Hydrogen and CCUS in the Italian Power System by 2050: Scenario Results and Implications for Flexibility and Security
Helena Thougaard Jensen	Integrating CCUS into Municipal-level Energy System Analysis for a Carbon Neutral Society
Mawaheb Mouftahi	Managing Excess Renewable Electricity in Integrated Energy Systems: A Comparative Analysis of Demand Flexibility, Storage, and PtX
Shiyan Chang	Key uncertainties influencing the regional layout of CCS and BECCS
Thibaut Wissocq	Quantifying the Flexibility Potential of District Heating Networks for France's 2035 Electrical Grid

Energy efficiency in the electricity sector, buildings, transport and industry

Amela Ajanovic	Energy Efficiency as a Key Enabler of Cost-Effective Transport Electrification
Avril Bullock	Installation to Operation: Quality Assurance of Dwelling Heat Pumps on Ambient Loop Networks
Daniel Muschick	Practical Aspects of Predictive Control of Electric Vehicle Charging Parks as Flexibility Providers
Hanne Kauko	Cross-sector integration of buildings, transport, and industry for peak-load reduction in low-carbon energy systems
Jenni Leinonen	Economics and CO2 Emission reductions of Electrifying Industrial Steam Production in Volatile Electricity Markets
Jiahe Chu	Design and Evaluation of a Sector-Coupled Energy Management System for Supermarkets as Flexible EV Charging Hubs
Jonas Gölz	An Integrated Modeling Approach for Transformation Measures in Industrial Energy Systems
Kenneth Hoffmann	Affordable and Decarbonized District Heating with Heat Pumps
Marie Münster	Assessing planetary boundaries of a future Danish energy system
Martin Grasenack	An integrated agent-based modelling framework for increasingly electrified industrial sites
Michael Frank	From Robust to Antifragile Industrial Energy System Planning: Comparative Assessment of Optimization Approaches under Uncertainty
Oddgeir Gudmundsson	Case analysis: Energy efficiency of building level versus flat level ventilation-based heat supply systems for low-energy buildings
Pier Paolo Brancaleoni	Evaluating the Flexibility Potential of High Temperature Heat Pumps for Defossilized District Heating
Rachel Parziale	Monitoring Heat Pumps in 4 Residential Climate Districts in Germany
Simon Müller	Economic feasibility of waste heat integration from high-power charging stations for electric trucks in district heating networks
Urban Žvar Baškovič	Prosumer Activation in Sector-Coupled Energy Systems: Heavy-duty EV Charging as a System Flexibility Challenge for a multi-sector prosumer
Xin Bin	Energy Optimization of Heat Exchanger Network under Fouling and Cleaning Constraints in Multiproduct Liquid Food Process

Electrification and sector coupling of transport, heating and industry

Anders N. Andersen	Adding hydrogen storage radically changes design of e-Methanol plants
Anton Achhammer	Integrating Geothermal Potential and Hydrogen Imports in PyPSA-Earth: A Case Study of Japan's Energy Transition
Benjamin Freischlad	Exploring price-based demand response based on variable emission factors of electricity in sector-coupled energy systems
Buster Bukart Hansen	A Bi-Level Sector Coupling Framework for Multi-Actor Energy Systems: Integrating Techno-Economic Optimisation and Cooperative Game Theory
Daniel Zinsmeister	Data-Driven City-Scale Archetypes for Munich's Residential and Non-Residential Building Stock
Heidi Kirppu	Electrified District Heating as a System Balancing Resource in Nordic Power Systems: Modelled Outlooks and Observed Realities in Finland
Ilona Malmipuro	Electricity market impacts of renewable hydrogen production and implications on the profitability of flexible generation in Finland in 2030
Mathias Berg Rosendal	Prioritising Flexibility Options in Future Energy Systems
Mohammad Hossein Fouladfar	Valuing Hydrogen Waste Heat in District Heating
Natasa Markovska	From Demonstration to Replication: Scaling Heat Pump Deployment in Existing Buildings through Install.res
Phillip Dale	Future assessment of electrical generation and grid constraints in Luxembourg
Thor Alexis Sazon	Energy system implications of planned hydrogen production in Norway
Yuanda Huang	Identifying China's 2060 Green Heating Pathway: Integrating Coupled Power-Heat System Optimization with Multi-Criteria Decision-Making

Geographical information systems (GIS) and mapping of demands and resources

Abdulraheem Salaymeh	Multidimensional Evaluation of Heat Source–Demand Matching and Techno-Economic Trade-Offs in Heat Transition Pathways
Els van der Roest	Does it fit? The spatial impact of different sustainable heating strategies
Franz Mauthner	CoSpatial Heat: A GIS-based framework for integrated heat planning and gas grid decommissioning
Ingela Becker-Grupe	Systematic GIS-based analysis for integration of multiple low-temperature waste heat sources into an existing district heating network
Nicola Tait	Spatial techno-economic modelling of heat decarbonisation solutions for urban energy communities to utilise local heat resources
Patrick Weßeler	F|Heat.connect - Scalable and Modular Approaches for Digital Heat Network Planning Using Geospatial Optimization
Ulrich Ganslmeier	Noise-Aware GIS Mapping of Air-to-Air Heat Pumps: Potential for Replacement of Individual Gas Floor Heating in Munich

Institutional and organisational change, energy communities and positive energy districts

Ann-Kathrin Rathmann	Economic Potential of Energy Sharing for SMEs in German Commercial Areas – An oemof Optimization Approach
Christian Bjerrum Jørgensen	Skills Development for the Future of District Heating and Cooling. A Key Enabler for the Green Energy Transition
Cosima Amanda Wörle	Towards Standardised Documentation of Experimental Research in District Heating and Cooling
Hironao Matsubara	Overcoming VRE Curtailment and Fostering Community Power: A Comparative Analysis of Smart Energy Systems in Japan's Decarbonization Leading Areas
John Kapetanakis	Aligning skill development in higher education with workforce needs in the district heating and cooling sector: Insights from a European survey
Jonathan Hachez	Strategic Uncertainty Modeling for Citizen Energy Communities: A Gaussian KDE Approach to Revenue Planning and Negotiation Support
Lisa Hjerrild	From Rights to Responsibilities: Citizens in the 2026 EU Energy Package
Luciano De Tommasi	Procurement of Energy Performance Contracting at Irish Universities—Template for Standardising Energy/Cost Savings Calculations for Proposed Projects
Marko Keber	Strengthening Smart Energy Systems Through Flexibility Mechanisms: Comparative Insights from Southern European Case Studies
Matteo Pozzi	The DHC Academy Alliance: Scaling the Value Chain through a Permanent Education & Training Marketplace
Mirko Morini	Impact of incentive allocation in optimal design of Renewable Energy Communities
Per Alex Sørensen	Skills4DHC. Qualification and recruitment of professionals for the district heating and cooling sector

Planning and organisational challenges for smart energy systems and energy efficiency

Alessandro Capretti	A district heating decarbonisation plan: behind and beyond the scenes
Alexander Meisinger	Bridging the green hydrogen gap: From carbon revenues to Power-to-X markets in Europe
Bennet Köppchen	Comparing Germany's Pathways to a Decarbonised Heat Supply: A Meta-Analysis of Transition Scenarios for the Heating Sector in the Future Energy System
Brian Vad Mathiesen	Designing the EU27 heat market for 2050: 55% district heating enabled by Energy Efficiency 2.0
Caroline Stiel	Green Heat, Higher Prices? The Price Effects of Decarbonizing District Heating in Germany
Dagnija Blumberga	Costs of Energy Measures Delays
Daniel Møller Sneum	Customers accepting extended connection times, while keeping inflation and costs down – a district heating customer business model that does it all?
Erik Schlahn	Financing and cooperation models for utilities in integrated energy systems – a European taxonomy
Florian Labaude	Integrate local energy systems in regional strategies – Exploring the multilevel dimension in the case of the Eurometropolis of Strasbourg, France.
Frederike Kuperjans	"Planning better when knowing less" - Optimizing Adaptive Transition Pathways for Distributed Multi-Energy Systems Under Deep Uncertainty
Giulia Spirito	Supporting compliance with the Energy Efficiency Directive: a strategic planning tool for District Heating systems.
Ingo Leusbrock	Quality management of district heating and cooling DHC systems - A prerequisite for sustainability, affordability and transparency
Jonathan Vogl	BehaviorGPT: Generating Household Activity and Mobility Schedules for Residential Energy Demand Modeling
Kristina Lygnerud	Characteristics of low temperature district heating business models
Marie-Emilie Ingen Housz	A data driven approach to a realistic urban heat transition in Rotterdam
Miguel Chang	Looking within and beyond energy system modelling - A survey on perceived model biases, model coupling, and integrating non-energy perspectives
Morten Jordt Duedahl	The road to 100% renewables: Why practical detours and incremental change can outperform perfect but limited solutions
Nermina Abdurahmanovic	Modelling and simulation of user behaviour and gamification effects on heat pump flexibility in multifamily buildings
Osamu Kunitomo	A Study on Technology Generations the District Heating and Cooling in Japan - The Necessity for a Definition of Technology Generations in Japan -
Søren Djørup	Economic impacts of thermal energy storage at the national level
Yijie Su	Modeling the Diffusion of Residential Demand-side Management Technologies with Building Performance and Heterogeneous Consumer Preferences
Aadit Malla	Planning cooling adoption: From cost-optimal pathways to real-world barriers

Renewable energy sources and waste heat sources including PtX for district heating

Armin Ardehali	Competing for electrons or molecules? Infrastructure planning in an eco-industrial cluster
Benedetto Nastasi	Switching to Renewable Fuels in District Cooling for Buildings and Data Centers
Joel Bertilsson	From Power Demand to Heat Supply: Optimizing Data Center Placement in the Nordics
Luis Enrique Ruiz Perdomo	Hybrid Modelling of Data Center Energy Consumption and Waste Heat as a Basis for Integration into Smart Energy Systems
Sabine Mönch	Waste Heat Integration in Low-Temperature Urban District Heating: An Energy System Modelling Case Study on Heating and Cooling Interactions
Sam Roozbehani	Integrated Planning and Control of Eco Industrial Clusters for Frequency Service Provision

Smart energy systems tools and methodologies

Ali Mohammad Nia	Sustainable Sector Integration and Multi-Objective Optimization of Heat Symbiosis by Real-Time Digital Twin Technology
Ali Soleimani	Towards trust in smart hybrid HVAC control systems from stakeholders' perspective
Andra Blumberga	Designing climate neutrality policies for the energy sector: insights from a system dynamics model
August Brækken	The role of building heating conversion in regional energy system transitions
Ben Spoek	Stochastic Consumer-Level MPC for Reliable Operation of District Heating Networks with Transport Delays
Bram van der Heijde	Developing and Testing Supervisory Control for District Heating and Cooling with Virtual Demonstrators
Christian Holm Christiansen	Semantic modelling of DHC substations: lessons from a multi-ontology exercise within IEA DHC Annex TS9
Dietrich Schmidt	Realizing autocommissioning and optimizing substation operations through machine learning
Enrico Ghidoni	Techno-economic and hydraulic feasibility evaluation of energy saving strategies for reduced circulation heat losses in domestic hot water systems
Felix Hallett	Re-evaluating Cooling Demand Diversity to Optimise Residential CHW Network Design
Felix Till Schattmann	Accelerating Building Energy Simulations with Neural Network Surrogate Models
Fiona Feurstein	Assessing Steady-State and Transient Methods for Thermal Simulation of District Heating Networks
François Lédée	Experimental comparison of smart controllers on a small district heating network
Henrique Monteiro	Three Dimensional Periodic CFD Analysis of Transient Heat Transfer in CORE Type Transformer Disc Windings
Hesham Ali	Using a marine digital twin to identify promising seawater heat pump applications in Baltic Sea district energy systems
Hossein Alimohammadi	Thermodynamic Optimization of Heat Source Placement in District Heating Networks for Reduced Mixing Losses
Igor Krupenski	Motivation Tariffs in District Heating: Assessing Efficiency Gains in an Urban Network in Estonia
Jakob Fuchsberger	A Framework for Cooperative, Optimization-based Control of Coupled Energy Systems
Jan Westphal	A control strategy for reducing heat losses in summer operation of a district heating network
Jasper Müller	Development of Operational Strategies for a Hybrid 4GDH Network using Dynamic Thermo-Hydraulic Simulation
Jelena Ziemele	Wastewater Heat Utilization in Riga: Challenges and Opportunities
Jorrit Heylen	How to Design Heating Networks? A Benchmark of Optimal Pipe Sizing and Design Guidelines, and Exploring the Potential of Peak Temperature Boosting.
Juan Rodriguez Santiago	Optimal Design and Control of Heat Pump Systems under Dynamic Energy Conditions in European Residential Buildings
Julian Plautz	Methodology for allocating network losses to consumers, applied at the Göttingen North Campus
Kadri Männasoo	Evaluating the Introduction of a Two-Part District Heating Tariff: Evidence from a Small Network in Estonia
Laura Block	Semi-Automated Fault Detection in District Heating Substations Using Machine Learning
Lukas Kranzl	Modeling market adoption of building-side measures for district heating temperature reduction: the role of subsidies and motivational tariffs
Maria Pedrosa	Decision-Support Tool for Waste Heat Recovery from Power Transformers for Grid and Heat Decarbonization
Matteo Giacomo Prina	How Climate Change Reshapes the Alpine optimal Energy Mix?
Mazarine Roquet	Use of digital twins to help the design of thermal networks: a case study application
Michel Speetjens	Capturing 3D unsteady heat transfer in variable-flow variable-temperature district-heating pipeline networks by a compact pipe model
Milad Mohammadyari	On the Convergence of ADMM-Based Distributed Optimization for Nonconvex Demand Response in District Heating Systems
Moritz Zuschlag	Analysis of the flexibility potential of monoenergetic and hybrid energy hubs for third- and fourth-generation district heating
Morten Karstoft Rasmussen	From Smart Meter Data to Action: Software-Defined Alarms for District Heating Optimization
Maarten Blommaert	Hybrid Electric Heater Substations for Cost-Effective, Low-Temperature District Heating Networks: A Physics-Based Optimization Approach
Nicholas Tedjosantoso	Towards Scalable District Heating Network Simulation: A Tensor-Based Multilinear Approach
Nicolas Oliver Marx	Flexible Biochar Production at Small-Scale Biomass-Based District Heating Plants: A GIS-Based Techno-Economic Feasibility Assessment
Nyasha Grecu	What is the optimal solution? Methods for considering uncertainty in district heating decarbonization
Paula Oberfeier	Time Series Aggregation Methods for Municipal Energy System Modeling: Application to District Heating Systems with Renewable Heat Sources
Plamen Bogdanov	Improving substation operation for fifth generation district heating and cooling networks: MPC development and evaluation in dynamic simulation
Ralf-Roman Schmidt	From Data to Value: Quantifying the Economic Benefits of Digitalisation and the Role of Data Spaces in District Heating Networks
Santiago Valencia-Cañola	Physical and thermo-economic feasibility of a variable-geometry ejector refrigeration system
Shihua Luo	Multi-Scenario Optimization of China's Power Sector Toward 2060 Under Renewable Cost Uncertainty via Ensemble Surrogate Modeling and Active Learning
Siddharth Sasidharan	Control-Oriented Modelling for Flexible Low-Temperature District Heating and Cooling Networks
Svenja Joseph	Virtualization of digital substations: A comparative analysis of three implementation strategies and field test validation
Tanel Kirs	Measuring District Heating Network Effect on District Cooling Network Losses in an Urban Environment
Valentin Kaisermayer	Harnessing Building Energy Flexibility with Model Predictive Control

Smart energy components, infrastructures and storage options

Adrien Vautrin	Reduce-Order Model of a Cavern Thermal Energy Storage based on Semi-Analytical Approach
Anas Algarei	A TESPy-Based District Cooling Modeling Tool for Energy Flexibility Characterization in Sector-Coupled Energy Systems
Antonia Queitsch	Market Behavior of Thermal Energy Storage Power Plants in an Agent-Based Electricity Market Model
Chia-Ling Yang	Automatic Frequency Restoration Reserve Provision from District Heating Systems with Large-Scale Heat Pumps: A Feasibility Assessment
Dominik Gryboś	Real-Time Optimization of the Discharge Process Control Strategy in Micro-CAES Systems for Adaptive Power Flexibility in Micro/Nano-Grids
Evi Monique Kasper	Measurement-Based Load Disaggregation for State Reconstruction in Medium-Voltage Grids with Limited Observability
Ilia Skorniakov	Industrial behind-the-meter battery storage profitability under future price volatility: 2030 Nordic-Baltic analysis
Jacek Leszczyński	Multiscale CAES technologies – an overview
Jan Markowski	Energy Efficiency Analysis of a Multi-Piston Expander for smart Micro-CAES System.
Johan Dalgren	The impact on DHS due to temperature losses in decentralized Thermal Energy Storage and how to reduce peak production at discharge
Johanna Roth	An exergetic comparison of distinct Carnot Battery concepts for industrial applications
Melisa Gounesher	Reduced-Order Modelling of Molten Salt Thermal Energy Storage for Energy System Optimization
Paula Ferreira	Estimating the Temperature Elasticity of Electricity Demand
Reinhard Haas	On future market prospects of electricity storage
Stefan Bordihn	Interpretable neural network prediction of electricity demand in a single-family home system with heat pump, photovoltaic and battery storage
Sylvia Wüst	Assessing the Impact of Dynamic Operating Envelopes on Future Low-Voltage Grids

Smart energy systems analysis

Alessandro Mati	Advancing climate resilience of energy systems through increased spatial resolution
Andrea Mackenzie	Innovative Load Testing Methodologies to ensure Efficient Operation of Energy Centres in Complex Developments
Bernd Möller	Biogas infrastructure network analysis for methanation in Schleswig-Holstein
Bianca Helbach	Component Model Selection to Balance Complexity and Accuracy for Operational Optimization of Multi-Energy Systems
Diamantis Almpantis	Sector-Coupled Green Hydrogen Microgrid Optimization: Deep Reinforcement Learning vs. MILP under Forecast Uncertainty
Dmytro Zhuk	Resilient Power Systems under Uncertain Conditions: Distributed Generation and Smart Microgrids in Ukraine
Jihong Hang	Framework for Multi-Energy System Design Integrating Security, Resilience, and Greenness: A Regional Case Study in China
Jinze Li	Renewable-Based Hybrid Energy System Enabling Electrification and Joint Decarbonization of the Oil and Gas and Petrochemical Sectors
Laura Deniz-Diaz	Climate change impacts on biomass availability and energy system transitions in Ghana: a Smart Energy Systems modelling approach
Philip Brandt	Comparison of the Power Outage Resilience of District Heating and Heat Pumps in a Residential District
Thomas Elliot	The hidden environmental and systemic trade-offs of Power-to-Gas

Special session on Fault Detection and Diagnosis in DH systems – applications from the OptiHeat+ project

Hoda Kamali / Ivan Verhaert	Classifying Operational Faults in CHP-Integrated Collective Heating Systems: A Multi-Site Analysis
Jad Al Koussa	Optiheat+ - A research project on fault detection and diagnosis in district heating
Nicola Frizziero	Characterization of air-related fault signatures in water-based radiator systems for low temperature operations
Rob Knoops	Fault Detection and Diagnosis in District Heating Substations: Lessons from Deploying Deep Learning
Senne Van Minnebruggen	Systematic Fault Characterization in District and Building Heating Systems: Methodology and Challenges
Stefanie Fonken	Fault detection and prioritization of substations in a residential district heating network - A demonstration case

Special session on Nordic Hydrogen Hubs

Frederik Dahl Nielsen	Hydrogen uptake in the Nordic energy transition: national profiles, infrastructure implications, and system-level impacts
Frederik Fristed	Impact of large-scale infrastructure commitments under uncertainty in transport and energy systems
Jannis Kerl	Aligning network tariffs, connection regimes, and DER investments for grid-friendly industrial electrification
Rasmus Bramstoft	Simple or too simple: Representing Power-to-X infrastructure in large-scale sector-coupled energy systems models
Yousef Pourjamal	Subnational Dynamics of the Energy Transition: A NUTS2-Level Assessment of Renewable Energy Systems in Nordic and Baltic Regions