

ENERDAY 2024 - Exploring Energy Demand Dynamics

18th International Conference on Energy Economics and Technology

Pre-conference dinner Informal Get Together	Thursday, 11 April 2024, 6 p.m.	Augustiner (↗) An der Frauenkirche 13, 01067 Dresden
Conference venue	Friday, 12 April 2024, 8 a.m. – 6 p.m.	HSZ Hörsaalzentrum (↗)

8:00	Registration, coffee & tea			
8:30	Opening address (Room: HSZ/0004/H) Prof. Dr. Dominik Möst, TU Dresden			
9:00 - 9:45	Keynote talk (Room: HSZ/0004/H, Chair: Prof. Dr. Dominik Möst, TU Dresden) The Power of Flex Maria Jarolin, Elia Group			
9:45	5 minutes to change rooms			
Parallel session 1 (09:50 – 10:50)				
09:50 - 10:50	Demand response Room: HSZ/004/H, hybrid Chair: Jannis Eichenberg Assistant: Victoria Lehmann	Hydrogen & natural gas I Room: HSZ/405/H, hybrid Chair: Lauritz Bühler Assistant: Ole Sauerbrey	Electric vehicle systems Room: HSZ/403/U, hybrid Chair: Maximilian Happach Assistant: Simon Koch	Energy policies, systems and market designs Room: HSZ/301/Z, hybrid Chair: Lisa Lorenz Assistant: Niklas Haubold
09:50	Load increase vs. load reduction: the impact of load shifting on the CO2 reduction potential in the context of industrial demand-side flexibility Nadine Gabrek, <i>Hochschule Mannheim</i>	Techno-economic analysis of long-distance hydrogen transport via high-voltage cables and pipelines: North Sea case study Veronika Lenivova, <i>Fraunhofer IEG</i>	Time to charge - Charging strategies for a German battery electric truck fleet Daniel Speth, <i>Fraunhofer ISI</i>	Implications of a potential bidding zone split for the demand allocation in Germany Lukas Günner, <i>Aurora Energy Research</i>
10:10	Energy demand dynamics considering high RE penetration: managing uncertainties, challenges, and solutions Rohit Bhakar, <i>MNIT Jaipur</i>	Large-scale evidence of residential natural gas savings through financial rewards Silvana Tiedemann, <i>Hertie School</i>	Integrating agent-based electric car simulation in energy system optimization - Potential impact of controlled charging and Vehicle-to-Grid on Germany's future power system Fabio Frank, <i>Fraunhofer ISI</i>	Long term energy policy vs. dynamic public preferences? A review of German energy policy Jakob Kulawik, <i>RWTH Aachen</i>
10:30	How much flexibility needs to be provided by hydrogen power plants? Philipp Hauser, <i>VNG AG</i>	Optimizing the distribution of hydrogen production: Evaluation of centralized vs. decentralized approaches from an energy system perspective based on the case of Germany Nikita Moskalenko, <i>University of Technology Berlin</i>	Modeling synthetic load profiles of future e-truck charging hubs at service stations Philipp Daun, <i>RWTH Aachen</i>	Paradigm shift in long-term decarbonization scenarios? A review and results of an in-depth analysis of current IPCC data Björn Steigerwald, <i>University of Technology Berlin</i>
10:50	Coffee & tea break - 25 minutes			

Parallel session 2 (11:15 – 12:15)				
11:15 - 12:15	Energy system modeling I Room: HSZ/004/H, hybrid Chair: Andreas Büttner Assistant: Victoria Lehmann	Hydrogen & natural gas II Room: HSZ/405/H, hybrid Chair: Philipp Hauser Assistant: Ole Sauerbrey	Renewable energy outlook Room: HSZ/403/U, hybrid Chair: Dimitrios Glynos Assistant: Simon Koch	Electricity markets and pricing schemes Room: HSZ/301/Z, hybrid Chair: Hannes Hobbie Assistant: Niklas Haubold
11:15	Modelling to generate alternatives for decarbonising the energy supply of a large university campus Katharina Esser, <i>Ruhr-University Bochum</i>	Import costs of green hydrogen via ships for Germany David Franzmann, <i>Forschungszentrum Jülich</i>	Does cross-border electricity trade stabilize the market value of wind and solar energy? Insights from a European panel analysis Clemens Stiewe, <i>Hertie School</i>	Preventing winners' default in procurement energy auctions. Theory, simulations and experiments Silvester van Koten, <i>University of Jan Evangelista</i>
11:35	Drivers of flexibility in a renewable energy system - correlation analysis with a sector-coupled energy system model Patrick Jürgens, <i>Fraunhofer ISE</i>	A fundamental outlook on European gas fundamentals and price for 2024 / 2025 Andreas Schröder, <i>ICIS</i>	Mine water geothermal energy - abandoned mines as a green energy source Fritz Raitchel, <i>TU Bergakademie Freiberg</i>	Technical aspects of implementing dynamic electricity prices in the context of a local electricity market Friederike Reisch, <i>Reiner Lemoine Institut</i>
11:55	Welfare redistribution through flexibility - Who pays? Nils Namockel, <i>University of Cologne (EWI)</i>	Low-carbon hydrogen imports to Europe: Case studies and transformation pathways for ramping up green and blue hydrogen Nima Farhang-Damghani, <i>FAU Erlangen-Nürnberg</i>	100% renewable energy system in the EU - Implications for infrastructure policy Fabian Präger, <i>University of Technology Berlin</i>	Identifying elasticities in autocorrelated time series using causal graphs Jorge Sánchez Canales, <i>Hertie School</i>
12:15 - 13:15	Lunch break – 60 minutes			

13:15 - 14:00	Keynote talk (Room: HSZ/0004/H, hybrid, Chair: Prof. Dr. Christian von Hirschhausen, TU Berlin) Exploring residential energy demand dynamics in the context of the energy transition Prof. Russell McKenna, ETH Zürich			
14:00	5 minutes to change rooms			
Parallel session 3 (14:05 – 15:35)				
14:05 - 15:35	Energy system modeling II Room: HSZ/004/H, hybrid Chair: Veronika Lenivova Assistant: Victoria Lehmann	Residential energy systems I Room: HSZ/405/H, hybrid Chair: Jens Maiwald Assistant: Ole Sauerbrey	Reviewing nuclear power Room: HSZ/403/U, hybrid Chair: Felix Fliegner Assistant: Simon Koch	District heating transition Room: HSZ/301/Z, hybrid Chair: Hendrik Scharf Assistant: Niklas Haubold
14:05	Energy demands for negative emissions and CO₂ supply in future German energy systems (cancelled) Thomas Schöb, <i>Forschungszentrum Jülich</i>	Power sector impacts of a simultaneous European heat pump rollout Alexander Roth, <i>DIW Berlin</i>	Nuclear fusion: An institutional economic analysis of a complex system good Fanny Böse, <i>Federal Office for the Safety of Nuclear Waste Management (BASE)</i>	What role do CHP plants and electric heat generators play in decarbonised district heating networks? Matthias Koch, <i>Öko-Institut</i>
14:25	Bridging the supply-demand gap: Techno-economic analysis of Uganda's electricity expansion plan Galila Khougali (<i>online contribution</i>), <i>University College London</i>	Leveraging smart meters to analyze price sensitivity under telescopic tariffs in India Madhav Sharma (<i>online contribution</i>), <i>Indian Institute of Technology</i>	The economic efficiency of non-light water reactors and their non-electrical applications in decarbonized energy systems Alexanders Wimmers, <i>University of Technology Berlin</i>	Flexibility provision in 5th gen district heating systems Annette Steingrube, <i>Fraunhofer ISE</i>
14:45	Short coffee & tea break – 10 minutes			
14:55	Regional implications for the German electricity system with the energy transition in a European context Jonas Egerer, <i>FAU Erlangen-Nürnberg</i>	Trade-offs between system cost and supply security in municipal energy system design: an analysis considering spatio-temporal disparities in the Value of Lost Load Febin Kachirayil (<i>online contribution</i>), <i>ETH Zurich</i>	The nuclear paradox in energy scenarios: Exploring nuclear projections and reality Christian von Hirschhausen, <i>University of Technology Berlin</i>	A case study on long-term investment planning for the decarbonization of Western Europe's most complex district heating network Stephanie Riedmüller, <i>Zuse Institute Berlin</i>
15:15	Mitigating future variable renewable energy sources curtailment in Poland through demand-side management strategies Marcin Pluta, <i>AGH University of Krakow</i>	Residential battery flexibility: Spot optimization and ancillary services case study Prokop Čech, <i>University of Jan Evangelista</i>	The effects of nuclear power plant closures in Germany 2021-2023 on network flows and RE-dispatch – Update of earlier ELMOD modeling results Enno Wiebrow, <i>University of Technology Berlin</i>	Towards carbon neutrality: Integrated investment and operational optimization for district heating transformation - A case study of Dresden in Germany Felix Bumann, <i>SachsenEnergie AG</i>
15:35	Coffee & tea break – 25 minutes			

Parallel session 4 (16:00 – 17:30)				
16:00 - 17:30	Energy and society	Residential energy systems II	Household PV systems	Advanced modelling and weather analysis
	Room: HSZ/004/H, hybrid Chair: Jakob Baumgarten Assistant: Victoria Lehmann	Room: HSZ/405/H, hybrid Chair: Lucas De La Fuente Assistant: Ole Sauerbrey	Room: HSZ/403/U, hybrid Chair: Felix Meurer Assistant: Simon Koch	Room: HSZ/301/Z, hybrid Chair: Martin Kittel Assistant: Niklas Haubold
16:00	How to get photovoltaics on the roofs? Empirical evidence on the public support for a residential solar mandate in Germany Tom Schütte, <i>University of Kassel</i>	Evaluating district energy systems: Central vs. decentral batteries in dynamic electricity pricing Karl Seeger, <i>RWTH Aachen</i>	Prosumers with PV-battery systems in the electricity markets Felix Meurer, <i>University of Duisburg-Essen</i>	A binary expansion approach for the water pump scheduling problem in large and high-altitude water distribution networks Denise Cariaga, <i>The University of Edinburgh</i>
16:20	Implications of energy justice for energy system modelling – Public acceptance's impact on renewable energy implementation (cancelled) Jonathan Hanto, <i>University of Technology Berlin</i>	Does knowledge of CO2 prices impact homeowners' choices? An analysis of energy retrofit preferences in Germany Simon Präse, <i>University of Kassel</i>	Household responses to the tax treatment of income from solar PV feed-in in Germany Reinhard Madlener, <i>RWTH Aachen</i>	Variable renewable energy droughts in the power sector – a model-based analysis and implications in the European context Martin Kittel, <i>DIW Berlin</i>
16:40	Short coffee & tea break – 10 minutes			
16:50	Bioenergy production and local acceptance - Quasi-experimental evidence on the impact on residential property values Shanmukha Srinivas Byrukuri Gangadhar, <i>Brandenburg University of Technology</i>	Residential electricity consumption patterns in northwestern Switzerland Valentin Favre-Bulle, <i>University of Neuchâtel</i>	enerWARD: Corporate sustainable bonds: Determinants of the Greenium Christoph Sperling, <i>TU Dresden</i>	High-resolution modeling of heating-cooling demand under future climate change scenarios Camila Villarraga Díaz, <i>German Aerospace Center (DLR)</i>
17:10	Exploring pathways for progressing renewable energy communities in Poland: Insights from comprehensive interviews Anna Kowalska-Pyzalska & Ewa Neska, <i>Wroclaw University of Science and Technology</i>	Overcoming the landlord-tenant dilemma: a techno-economic assessment of collective self-consumption for European multi-family buildings (cancelled) Russell McKenna <i>ETH Zürich</i>	Solar prosumage: Interactions with the transmission grid (cancelled) Mario Kendziorski, <i>University of Technology Berlin</i>	Electricity markets in a fully decarbonized economy Frank Heinz, <i>RWTH Aachen</i>
17:30	End of parallel sessions			
17:45	Group picture at the TU-Logo in front of the HSZ (↗)			
18:00	Bus transfer to gala dinner (departing from Mommsenstraße)			
Gala Dinner Official closing event and award ceremony		Friday, 12 April 2024 18:45 p.m.	Spitzhaus Radebeul (↗) Spitzhausstraße 36, 01445 Radebeul	
23:30	Bus transfer to Dresden central train station (departure from the gala dinner location)			