INREC 2024 - Conference Program - August 27th 2024 (update from August 26th)

Time	Stream: **Price Forecasting**	Stream: **Energy Trading & Risk Management**	Stream: **Operations in Energy Markets**	Stream: **Future Energy Systems & Markets**
10:00	Registration in R12 S00 H12			
10:15	Welcome & Introduction in Room R12 S00 H12			
10:30	**Keynote 1 in Room R12 S00 H12** *Prof. Dr. Zita Vale, Polytechnic of Porto; Applied Energy Elsevier* *Electricity Markets: New models for a Sustainable and Efficient Energy Future*			
11:30	Lunch Break			
	Session 1.1 Electricity Price Forecasting I Session Chair: **Bartosz Uniejewski** Room: **R11 T03 C20**	**Session 2.1 Modelling Challenges** Session Chair: **Christoph Weber** Room: **R11 T03 C05**	**Session 3.1 Storage Uncertainty** Session Chair: **Benjamin Böcker** Room: **R11 T03 C82**	**Session 4.1 Data and Uncertanty Modelling in Energy Systems** Session Chair: **Rüdiger Kiesel** Room: **R11 T03 C75**
12:30	*Integrating Probabilistic Forecasts of Fundamental Variables for Enhanced Electricity Price Forecasting* Bartosz Uniejewski, Wroclaw Univerisity of Science and Technology	*Learning Probability Distributions of Day-Ahead Electricity Prices* Lubos Hanus, Czech Academy of Sciences	*Simulation-optimization process to evaluate water values for a storage in a long-term energy system simulation tool* Juliette Gerbaux, Réseau de Transport de l'Electricité	*Transparency++: Improving data and forecast quality for the European transmission system* Margarida Mascarenhas, KU Leuven
13:00	*ROLCH: Regularized Online Learning for Conditional Heteroskedasticity* Simon Hirsch, Statkraft Trading GmbH / University of Duisburg-Essen	*Automated Spatio-Temporal Weather Modeling for Load Forecasting* Julie Keisler, EDF R&D / INRIA	*A Two-Timescale Decision-Hazard-Decision Formulation for Storage Usage Values Calculation in Energy Systems Under Uncertainty* Camila Martinez Parra, Réseau de Transport de l'Electricité	*A Critical Analysis of the Data Requirements for Effective Uncertainty Modelling in Energy Systems* Lena Rosin, Fraunhofer UMSICHT
13:30	*Probabilistic forecasting of day-ahead electricity prices: Postprocessing of point predictions with Isotonic Distributional Regression.* Arkadiusz Adam Lipiecki, Wrocław University of Science and Technology	*The solar rebound effect: Evidence from a German household panel* Stefan Poier, FernUniversität in Hagen	*Profitability of Batteries in Day-ahead and Intraday Electricity Markets, Model Analysis with Endogenous Prices* Arjen Veenstra, University of Groningen	*A Modular Framework for Uncertainty Quantification and Risk Analysis in Active Distribution Grid Simulations* Sarah Fayed, University of Applied Sciences Emden/Leer
14:00	Coffee Break			
	Session 1.2 Electricity Price Forecasting II Session Chair: **Florian Ziel** Room: **R11 T03 C20**	**Session 2.2 Risk Assessment in Commodity Markets** Session Chair: **Rüdiger Kiesel** Room: **R11 T03 C05**	**Session 3.2 Electric Vehicle Charging** Session Chair: **Jutta Geldermann** Room: **R11 T03 C82**	**Session 4.2 Energy Transition Risk** Session Chair: **Christoph Weber** Room: **R11 T03 C75**
14:15	*Enhancing reliability in prediction intervals using point forecasters: Heteroscedastic Quantile Regression and Width-Adaptive Conformal Inference* Carlo Sebastián, Fortia Energía	*Closed-form Option Formulas for Kou-like Processes* Piergiacomo Sabino, E.ON Energy Market GmbH	*On charging behavior at public charging stations in Germany - a discrete choice analysis of revealed-preference data* Philipp Theile, University of Cologne	*Financial scenario analysis model of Polish energy transition* Bartosz Sobik, SGH Warsaw School of Economics
14:45	*Multiple split approach – multidimensional probabilistic forecasting of electricity markets* Katarzyna Maciejowska, Wroclaw University of Science and Technology	*EU ETS Market Expectations and Rational Bubbles* Christoph Wegener, Leuphana	*Stochastic parameterization of future German low-voltage distribution grids for Monte Carlo simulations of controlled EV charging* Arnd Hofmann, University of Duisburg-Essen	*Energy transition risk under implementation of a carbon budget with CO2 pricing option* Imke Rhoden, Jülich Systems Analysis, Forschungszentrum Jülich GmbH / Ruhr-Universität Bochum
	Session 1.3 Electricity Price Forecasting III Session Chair: **Florian Ziel** Room: **R11 T03 C20**	**Session 2.3 AI Applications in Energy Markets** Session Chair: **Rüdiger Kiesel** Room: **R11 T03 C05**	**Session 3.3 Renewable Energy Forecasting** Session Chair: **Jutta Geldermann** Room: **R11 T03 C82**	**Session 4.3 Cross-sector Coupling** Session Chair: **Christoph Weber** Room: **R11 T03 C75**
15:15	*Improving the accuracy of day-ahead electricity price forecasts by extending the long-term seasonal component* Katarzyna Chęć, Wrocław University of Science and Technology	*Towards personal Assistants for Energy Processes based on locally deployed LLMs* Florian Marquardt, TH Brandenburg / regiocom SE	*How the resolution of wind data affects multi-decadal wind power forecasts* Nina Effenberger, University of Tübingen	*Integrating Power and Water Grids: Unlocking Flexibility and Economic Advantages* Amjad Khashman, Oxford Institute for Energy Studies / Independent Commodity Intelligence Services
15:45	*Temporal Graph Neural Networks for DAM time series.* Carlo Lucheroni, University of Camerino	*Forecasting supply curves using monotonic autoencoders with orthogonal encodings* Nabangshu Sinha, University of Camerino	*A comprehensive review of federated learning for renewable energy forecasting* Viktor Walter, Karlsruhe University of Applied Sciences	*Multi-Market Coupling Model: A Residual Demand Approach* Tobias Kargus, Karlsruhe Insitute of Technology
16:45	Social Event: Folkwang Museum resp. Gruga Park			
18:30	Conference Dinner @ edda			

INREC 2024 - Conference Program - August 28th 2024

Time	Stream: **Energy Forecasting**	Stream: **Energy Systems & Policy**	Stream: **Energy Systems**	Stream: **Energy Trading & Risk Management**
	Session **1.4 Persistence in Energy Forecasting** Session Chair: **Florian Ziel** Room: **R11 T03 C20**	Session **2.4 Residential Energy Pricing** Session Chair: **Jutta Geldermann** Room: **R11 T03 C05**	Session **3.4 Security of Supply** Session Chair: **Maike Spilger** Room: **R11 T03 C82**	Session **4.4 Energy Trading under Uncertainty** Session Chair: **Christoph Weber** Room: **R11 T03 C75**
09:15	*Efficient mid-term forecasting of hourly electricity load using generalized additive models* Monika Zimmermann, University of Duisburg-Essen	*Designing price guarantees for residential heat pump users* Leo Semmelmann, Karlsruhe Institute of Technology	*A stochastic optimization-based approach to investigate the security of supply* Anais Liquier, Réseau de Transport de l'Electricité	*Cost-benefit analysis of government backed credit enhancement schemes for offtaker counterparty risk under corporate Power Purchase Agreements* Johann Schütt, TU Bergakademie Freiberg
09:45	*Forecasting Volatility of Oil-based Commodities: The Model of Dynamic Persistence* Lukas Vacha, Charles University in Prague, Czech Academy of Science	*Assessing the role of electricity tariffs for the provision of flexibility by households - A stochastic MCP approach including the system perspective* Marco Breder, University of Duisburg-Essen	*Diversification for energy supply chains* Silvian Radke, Brandenburg University of Technology	*Accounting for Forecasting Uncertainty in Multi-Market Unit-Commitment Models Using Post-Modern Portfolio Theory* Raik Becker, Vattenfall
10:15	Coffee Break			
10:30	**Keynote 2 in Room R12 S00 H12** Dr. Nurten Avci, EIfER *French-German Cooperation towards carbon neutrality and industrial competitiveness*			
11:30	Coffee Break			
	Session **1.5 Load Forecasting** Session Chair: **Florian Ziel** Room: **R11 T03 C20**	Session **2.5 Evaluation in Energy Systems** Session Chair: **Jutta Geldermann** Room: **R11 T03 C05**	Session **3.5 Industrial Power Management** Session Chair: **Christoph Weber** Room: **R11 T03 C82**	Session **4.5 Uncertainties in Gas Markets** Session Chair: **Yannik Pflugfelder** Room: **R11 T03 C75**
12:00	*Probabilistic Functional Forecasting of Residual Demand Curves in Electricity Markets* Jose Portela, Universidad Pontificia Comillas	*Economic Evaluation of Residential Energy Systems using Compound Real Options* Sebastian Glombik, Fraunhofer UMSICHT	*Modifying electricity price signals in Germany for supply-oriented electricity demand and economical hydrogen use in industry in the context of green hydrogen standards.* Carsten Schütte, University of Applied Sciences Hamburg	*Gas Prices in the EU and other Hubs: A Time Series Analysis Approach* Carolina García-Martos, Universidad Politécnica de Madrid
12:30	*oRaklE - Automated long-term demand forecasting in hourly resolution.* Johannes Schwenzer, Europa Universität Viadrina	*Extending Least-Squares Monte Carlo to a System-Oriented Study on Storage Operation* Maike Spilger, University of Duisburg-Essen	*Combining flexibility potential, asset operation and grid utilization strategies in industrial power management* Cornelia Klüter, University of Duisburg-Essen	*Transformations and Shocks in the US Natural Gas Market: An Analysis Using a Non-Gaussian SVAR Model* Markos Farag, University of Cologne
13:00	Lunch Break			
14:00	**Keynote 3 in Room R12 S00 H12** Dr. Derk Swider, E.ON *An affordable energy transition – How we can reset our priorities and secure social acceptance*			
15:00	Coffee Break			
	Session **1.6 Intraday Forecasting** Session Chair: **Florian Ziel** Room: **R11 T03 C20**	Session **2.6 Future Power Grids** Session Chair: **Jutta Geldermann** Room: **R11 T03 C05**	Session **3.6 Scenarios in Energy Markets** Session Chair: **Christoph Weber** Room: **R11 T03 C82**	Session **4.6 Energy Market Challenges** Session Chair: **Marco Breder** Room: **R11 T03 C75**
15:15	*A Novel Feature Selection Algorithm for Enhanced Intraday Price Prediction* Runyao Yu, Delft University of Technology / Austrian Institute of Technology	*Conceptualizing procurement of frequency stabilization in energy systems with high shares of renewable energies* Fabian Hendrik Fäßer-Stock, University of Duisburg-Essen	*Understanding the future biomethane market dynamics and development under the quota market influence: a two-step optimization approach* Milad Rousta, University of Stuttgart	*Finding Stable Price Zones in European Electricity Markets: Aiming to Square the Circle?* Teodora Dobos, Technical University of Munich
15:45	*Continuous Intraday Price Forecasting for Algorithmic Trading - Challenges and Solution Approaches* Timothée Hornek, University of Luxembourg - SnT	*Effects of Different Flexibility Use Cases on Grid Expansion Planning* Florian Hirschmann, University of Kassel	*Using MCDA to Investigate Energy Scenarios From The Stakeholders' Perspectives* Matthias Grajewski, FH Aachen University of Applied Sciences	*Identification of strategic withholding in European electricity markets* Alice Lixuan Xu, Hertie School
16:15	*Addressing Uncertainty in Energy Markets with Bayesian Inference* Daniel Nickelsen, Augsburg University	*Redistribution through interconnector expansion: How to achieve pareto efficiency?* Pia Willers, University of Cologne	*Extreme Event Experience – An accelerator for Germany's Heat Transition?* Gerrit Stöckigt, Institute of Climate and Energy Systems - Jülich Systems Analysis	*Uncertainty Premium in Energy Markets* Imtiaz Sifat, Radboud University
16:45	End of Conference			