

2024 20th International Conference on the European Energy Market (EEM 2024)

**Istanbul, Turkey
10-12 June 2024**

Pages 1-515



**IEEE Catalog Number: CFP2452D-POD
ISBN: 979-8-3503-8175-7**

**Copyright © 2024 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP2452D-POD
ISBN (Print-On-Demand):	979-8-3503-8175-7
ISBN (Online):	979-8-3503-8174-0
ISSN:	2165-4077

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Practical Solutions to Limit Computational Burden of UC in Island Power Systems	1
<i>Enrique Lobato, Pedro Sánchez-Martín, Mohammad Rajabdorri, Lukas Sigrist</i>	
Clean Hydrogen Economy Outlook: Green is the Future	7
<i>Behrang Shirizadeh, Aurélien Ailleret, Augustin Guillon, Emmanuel Bovari, Johannes Trüby</i>	
Review of Energy Communities in Agriculture.....	14
<i>Mikko Nykyri, Salla Annala, Samuli Honkapuro, Pertti Silventoinen</i>	
Learning in Stackelberg Games with Application to Strategic Bidding in the Electricity Market	21
<i>Francesco Morri, H��l��ne Le Cadre, Luce Brotcorne, Pierre Gruet</i>	
Optimal State of Charge Control of EV Batteries Within Energy Community Considering Cost Minimization and Environmental Impact.....	28
<i>Nemanja Mišljenovic, Goran Kneževic, Matej Źnidarec, Danijel Topic</i>	
Stochastic Optimization for Unit Commitment Applied to the Security of Supply.....	34
<i>Jonathan Dumas</i>	
Deep Generative Methods for Producing Forecast Trajectories in Power Systems.....	43
<i>Nathan Weill, Jonathan Dumas</i>	
Evaluation of Government Actions Discouraging Housing Energy Retrofit in the UK: A Critical Review.....	50
<i>Chamara Panakaduwa, Paul Coates, Mustapha Munir</i>	
The Role of Energy Storage in Promoting Sustainable Energy Transition in an Island Community	56
<i>Ville Sihvonen, Samuli Honkapuro</i>	
Estimating Hosting Capacities and Flexibility Potential in Different European Low Voltage Networks	63
<i>Chloe Fournely, Matej Pecjak, Boštjan Blažic, Edin Lakic</i>	
A Comparative Analysis of Cournot Equilibrium and Perfect Competition Models for Electricity and Hydrogen Markets Integration.....	69
<i>Luis A. H. Rozas, Jos�� Villar</i>	
Can Success Be Planned? - China's Path to Technology Leadership in Green Electricity and Hydrogen and Its Implications for Europe and the United States.....	74
<i>Viktor P. M��ller, Lin Zheng</i>	
Forecast or Nowcast to Predict Electricity Prices? The Role of Open Data	82
<i>Araavind Sridhar, Markku Karhunen, Samuli Honkapuro, Fredy Ruiz</i>	
Stochastic Optimization Framework for Microgrid Operation in Energy Communities: Ensuring Reliable Power Supply with Distributed Energy Resources.....	88
<i>Mahsa Omri, Mohammad Jooshaki, Mahmud Fotuhi-Firuzabad, Payman Dehghanian, Fei Wang</i>	
Security-Constrained Energy and Flexibility Bidding in Power Distribution Networks.....	93
<i>Niloofer Pourghaderi, Mahmud Fotuhi-Firuzabad, Payman Dehghanian, Fei Wang, Milad Kabirifar, Moein Moeini-Aghaie</i>	

An Agent Based Model Applied to a Local Energy Market (LEM) Considering Demand Response (DR) and Its Interaction with the Wholesale Market (WSM).....	99
<i>António F. Dos Santos, João T. Saraiva</i>	
Influence of Nuclear Investment Costs and Baseload Demand on the Optimal Energy Mix	105
<i>Martin Hjelmeland, Jonas K. Noland, Magnus Korpås</i>	
Energy Management in Organized Industrial Zones: Promoting the Green Energy Transition in Turkish Manufacturing Industry	111
<i>Volkan S. Ediger, Mehmet A. Küçüker, İstemi Berk, Ali Inan, Fehmi G. Üçtug</i>	
A Novel Criterion of Electricity Price Forecast for Demand-Side Responses Participating in the Electricity Market.....	119
<i>Sinan Cai, Masahiro Mae, Ryuji Matsuhashi</i>	
Green Hydrogen for the Energy Transition in Germany - Potentials, Limits, and Priorities	124
<i>Felix Doucet, Marina Blohm, Eric Von Düsterlho, Jonas Bannert</i>	
Active Power Curtailment and Reactive Power Control in PV-Rich Low-Voltage Distribution Network.....	130
<i>Marina Dubravac, Danijel Topic, Krešimir Fekete, Zvonimir Šimic, Rene Prenc, Michele Rojnic</i>	
Congestion Management Based on Power-to-Gas – Opportunities and Challenges in European Electricity Markets	136
<i>Johannes Predel, Bobby Xiong, Pedro C. Del Granado, Ruud Egging-Bratseth, Hongyu Zhang</i>	
Decarbonization Scenarios Assessment Under Local Renewable Energy Communities: Ispaster Municipality	144
<i>N. Pardo García</i>	
Economic Prospects of Flexible Nuclear Energy Operation Under Different Market Conditions	149
<i>Anders O. Grotle, Simen Dyrkolbotn, Martin N. Hjelmeland, Jonas K. Noland, Magnus Korpås</i>	
Electricity Price Forecasting with Principal Component-Guided Sparse Regression.....	156
<i>Takuji Matsumoto, Florian Ziel</i>	
Evaluation of the Economic Feasibility of Price Arbitrage Operations in the Iberian Electricity Market	162
<i>Francisco Lobo, João T. Saraiva</i>	
Practical Experiences from Application of a Comprehensive Simulator for Pumped Storage Hydropower Investment Decisions on a Real Investment Case	168
<i>Kristine Schüller, Per Aaslid, Kaspar Vereide, Hans I. Skjelbred</i>	
Modifying Electricity Price Signals in Germany for Supply-Oriented Electricity Demand and Economical Hydrogen Use in Industry.....	174
<i>Carsten Schütte, Sebastian Timmerberg</i>	
Pricing Mechanisms' Impact on Welfare Distribution in Energy Communities with Energy Storage.....	180
<i>Marthe F. Dynge, Kjersti Berg, Sigurd Bjarghov, Ümit Cali</i>	
Energy Security in the European Union – Main Determinants	187
<i>Maria B. Pereira, Margarita Robaina, Susana Silva</i>	

Using ProdRisk–SHOP Simulator for Investment Decisions of Solar and Hydro Hybridization.....	193
<i>Jiehong Kong, Stefan Rex</i>	
Investigating the Potential of Balancing Reserve Sharing in Central Europe	199
<i>Claire Lambriex, Maria Dietz, Albert Moser</i>	
Maximizing Value in Power-to-Hydrogen Plants Within Eco-Industrial Clusters Through Internal Heat Market.....	205
<i>Sina Ghaemi, Amjad Anvari-Moghaddam</i>	
Self-Scheduling for a Hydrogen-Based Virtual Power Plant in Day-Ahead Energy and Reserve Electricity Markets	212
<i>Erik F. Alvarez, Pedro Sánchez-Martín, Andrés Ramos</i>	
Comparative Study of Sustainable Heating Decision-Making: Insights from the Residential and Industrial Sectors.....	218
<i>Barbara Breitschopf, Anna Billerbeck, Sabine Preuss, Stefanie Horian</i>	
Know Your Tools - A Comparison of Two Open Agent-Based Energy Market Models.....	229
<i>Florian Maurer, Felix Nitsch, Johannes Kochems, Christoph Schimeczek, Volker Sander, Sebastian Lehnhoff</i>	
Financial Economic Relief using Grid-Scale Battery Storage Systems in Future Electricity Markets.....	237
<i>Julius Beranek, Sebastian Zietlow, Thorsten Weiskopf, Armin Ardone, Wolf Fichtner</i>	
A Cooperative Game-Theoretic Approach for the Payment Method of Virtual Power Plant Units with Heterogeneous Reliability	243
<i>Dávid Csercsik, Anna Fegyó</i>	
Economic Opportunities of Power Curtailment and Peak Shaving on Residential PV-BESS Systems.....	249
<i>Joel Alpizar-Castillo, Koen Linders, Darío Slaifstein, Laura Ramírez-Elizondo, Pavol Bauer</i>	
Methods of Obtaining and Utilising Reactive Power Used by Selected TSOs in Europe and Australia and ISOs in the USA.....	255
<i>Michal Sabat, Piotr Sidor</i>	
Addressing Premature Reinforcement of Low-Voltage Distribution Infrastructure with Peak-Shaving and Power Curtailment: A Business Model	262
<i>Joel Alpizar-Castillo, Laura Ramírez-Elizondo, Pavol Bauer</i>	
Exploring the Effectiveness of the Integrated European Balancing Markets in Encouraging Demand Response Engagement.....	268
<i>Estibalitz R. Irusta, Christine Van Stiphoudt, Ivan Pavic</i>	
Alternative Price Clearing Mechanisms for the Day-Ahead Electricity Market to Balance Consumers and Producers Outcomes	276
<i>Bruno Diogo, Jorge Sousa, João Lagarto</i>	
Methodology for the Geo-Referenced Urban-Scale Assessment of High Electrification Scenarios	286
<i>Juan Pedreroalegría, Eneko A. Uriarte, Nekane H. Martínez, Ander Z. Gómez, Amaia G. Garrido, Raúl M. Hernandez</i>	
EU ETS Impact on Companies Performance in Portugal: A Sector Analysis.....	295
<i>Mara Madaleno, Margarita Robaina, Mónica Meireles, Pablo Silva</i>	
Virtual Batteries Business Models for Energy Suppliers.....	301
<i>Isaias Gomes, José Villar, João Sousa, Alexandre Lucas</i>	

Benefits of Sharing and Exchange for the Procurement of aFRR by Transmission System Operators using a Chance-Constrained Approach.....	306
<i>Damien Bouvier, Viktor Terrier, Nathalie Grisey</i>	
GDBN, a Customer-Centric Digital Platform to Support the Value Chain of Flexibility Provision.....	313
<i>Fábio Coelho, Luís Rodrigues, João Mello, José Villar, Ricardo Bessa</i>	
Review of Commercial Flexibility Products and Market Platforms.....	319
<i>Luís Rodrigues, Kamalanathan Ganesan, Fábio Retorta, Fábio Coelho, João Mello, José Villar, Ricardo Bessa</i>	
Energy and Energy Communities Business Models for a Sustainable Agrifood Sector.....	325
<i>Fábio Cruz, A. Sérgio Faria, Armando Moreno, João Mello, Isabelle Andrade, André Garcia, Jose Villar</i>	
Determination of Locational Marginal Redispatch Prices of a Mixed-Integer Congestion Management Problem.....	331
<i>Andreas Blank, Jana Einsiedler, Albert Moser</i>	
GLocalFlex, New Flexibility Solutions and Services. Cross-Pilot Overarching Business Use Cases	337
<i>Carlos Madina, Amaia Gonzalez-Garrido, Ines Gomez-Arriola, Maider Santos-Mugica, Pirkko Kuusela, Arttu Tamminen, Stephan Mehnert</i>	
Comparative Study of Different Pricing Algorithms on P2P Market-Based Multicarrier Energy Communities: A Case Study in Bilbao	343
<i>Ander Zubiria, Joseba Jimeno</i>	
Dynamic Pricing in EV Charging Stations with Renewable Energy and Battery Storage.....	349
<i>Carlos A. M. Silva, José R. Andrade, Ricardo J. Bessa, Filipe Lobo</i>	
Analyses of the Outcomes of the Intraday Continuous Trading Market in Europe: The French Case	356
<i>Andrea Alberizzi, Alessandro Zani</i>	
The Role of Thermal Energy Storage in Market Integration of Variable Renewable Electricity - A German Case Study	361
<i>Alexander Burkhardt, Anna Billerbeck, Christiane Bernath, Pia Manz, Gerda Deac, Anne Held</i>	
Timing the Electricity Markets in Hydropower Systems with Natural Time Delay	370
<i>Per Aaslid, Christian Ø. Naversen</i>	
A Novel Order Type for Storage Units in Day-Ahead Electricity Auctions	376
<i>Dávid Cserssik, Dániel Divényi, Ádám Sleisz, Péter Grabner, Péter Sorés</i>	
Users' Willingness to Participate in V2G – A Comparison Between German and UK Households.....	381
<i>Nora Baumgartner, Niklas Klumpp, Tim Signer, Zia Wadud, Wolf Fichtner</i>	
Understanding the Significance of Biodiversity in Onshore Wind Turbine Projects: Evidence from Denmark	389
<i>Matilde S. Langeland, Yingkui Yang, Knud Sinding</i>	
Techno-Economic Evaluation of a Battery-as-a-Service Business Model in an Energy Community	395
<i>Nerea Goitia-Zabaleta, Ane Feijoo-Arostegui, Aitor Milo, Haizea Gaztañaga, Elvira Fernandez</i>	

Neural Network Power Flow Approach to Detect Overload and Voltage Anomalies in Low-Voltage Unbalanced Networks, Agnostic of Network Topology	401
<i>Amaia González-Garrido, Jon A. Rivera, Juan F. Zaballa, Jose E. Rodríguez-Seco, Eugenio Perea</i>	
Edge-Cloud Based EMS for Distributed ESS Integration in Smart Grids.....	407
<i>Ane Feijoo-Arostegui, Adrián Orive, Jon Imaz, Haizea Gaztañaga, Marco Gonzalez-Hierro, Ander Goikoetxea</i>	
Assessing the Contribution of Flexibility to System Adequacy in a Pan-European Market.....	413
<i>Izabella Faijfer, Dario Siface, Roberto Calisti, Diego Cirio</i>	
Pilot Study on Residential Measures Against Unpredictable Outages with Batteries and Photovoltaics Considering Necessary Loads	419
<i>Masashi Matsubara, Masahiro Mae, Ryuji Matsuhashi</i>	
About Pipes and People: Analyzing Factors for the Adoption of District Heating.....	425
<i>Anna Billerbeck, Barbara Breitschopf, Sabine Preuß</i>	
Building Flexibility Bidding Curves for Energy Communities	433
<i>Luís Rodrigues, João Mello, Kamalanathan Ganesan, Ricardo Silva, José Villar</i>	
Enhancing Retail Flexibility Bidding in European Electricity Markets Through Bid Conversion.....	439
<i>Max Harst, Johannes Knörr</i>	
Are Carbon-Based E-Fuels a Viable Path to Decarbonization? - A Critical Comparison of Global Supply and Demand	447
<i>Viktor P. Müller, Matia Riemer, Johannes Eckstein</i>	
Market Designs, Actor Decisions and Market Values: Assessment of Remuneration Mechanisms for Future Electricity System Scenarios	454
<i>Johannes Kochems, Evelyn Sperber, Kristina Nienhaus, Christoph Schimeczek</i>	
Beyond Price – Assessing the Impact of Non-Price Criteria in Solar Photovoltaic Auctions.....	460
<i>Michael Stecher, Vasilios Anatolitis, Julia Panny</i>	
A Double Pricing and Penalties “Separated” Imbalance Settlement Mechanism to Incentive Self Balancing of Market Parties	468
<i>Hugo Algarvio, António Couto, Ana Estanqueiro</i>	
A Methodology for Dynamic Procurement of Secondary Reserve Capacity in Power Systems with Significant vRES Penetrations.....	474
<i>Hugo Algarvio, António Couto, Ana Estanqueiro</i>	
Reduction of the Market Splitting Occurrences: A Dynamic Line Rating Approach for the 2030 Iberian Day-Ahead Market Scenarios	480
<i>Hugo Algarvio, António Couto, Ana Estanqueiro, Rui Carvalho, Gabriel Santos, Ricardo Faia, Pedro Faria, Zita Vale</i>	
A Cost Analysis of Integrating Industrial Assets in the Redispatch Process in Austria	486
<i>Sophie Knöttner, Matthias Traninger, Regina Hemm, Sarah Fanta, Stefan Strömer, Tara Esterl</i>	
Are You Flexible Enough? The Impact of Energy Literacy and Environmental Values on Flexibility Provision.....	492
<i>Laura Andolfi, Hanna Marxen, Muriel Frank</i>	

Operation of an EV Parking Lot Subject to Capacity-Based Grid Tariffs Offering Demand Response.....	499
<i>Jonas H. Pinderud, Andreas F. Hansen, Kasper E. Thorvaldsen</i>	
Decision Aid Tool to Mitigate Quality of Service Asymmetries in Distribution Networks.....	505
<i>Pedro Macedo, José N. Fidalgo</i>	
Willing to Wait? Acceptance for Load Management at e-Vehicle Charging Stations in Germany	511
<i>Paul Fabianek, Reinhard Madlener</i>	
Flexibility Market Solution Based on Autonomous Activation of P-U Control Characteristics in Roof-Top PV Inverters	516
<i>Ágnes Závecz, András J. Horváth, János Csátár, Péter Sorés, Dániel Divényi, Dávid Raisz</i>	
Analysis of the Portuguese and Spanish NECPs using the CEVESA MIBEL Market Model.....	522
<i>André R. De Oliveira, José V. Collado, Salvador D. Martínez, João A. P. Lopes, João T. Saraiva, F. Alberto Campos</i>	
Development of a Global Market Model for Renewable Hydrogen.....	528
<i>Philipp Ortmann, Stefan Reuter, Stefan Strömer</i>	
Preferred Configurations of Renewable Energy Communities: Insights from In-Depth Interviews	534
<i>Ewa Neska, Anna Kowalska-Pyzalska, Maksymilian Bielecki</i>	
Shifted or Additional Charging of Electric Vehicles? The Effect of Smart Charging on German Prosumers	538
<i>Laura Selgrad, Anne Kesselring, Sabine Pelka, Patrick Plötz</i>	
Shared Batteries Business Models for Energy Communities	543
<i>Armando Moreno, José Villar, Pedro Macedo, Ricardo Silva, Susana Bayo, Ricardo Bessa</i>	
Modelling the Transformation of Hydrogen Ecosystems via Geo-Techno-Economic Optimization	549
<i>Friedrich Mendler, Nikolas Müller, Christopher Voglstätter, Tom Smolinka, Christopher Hebling, Friedrich Mendler, Barbara Koch</i>	
Investigating the Hydrogen Demand Curve in Road Transport.....	554
<i>Lin Zheng, Johannes Eckstein, Bastian Weißenburger, Lin Zheng, Bastian Weißenburger</i>	
Strategic Plays in Electricity Markets: Exploring Gaming Opportunities for Demand Under Different Settlement Rules	562
<i>Shilpa Bindu, Luis Olmos, José P. C. Ávila</i>	
Endogenous Technology Learning in TEMOA-Europe	571
<i>Daniele Lerede, Valeria Di Cosmo, Davide Segantini, Laura Savoldi</i>	
Economics of Public Charging Stations in Solar-Covered Parking Lots Under the German GHG Quota	578
<i>Jonas Bannert, Jens-Eric Von Düsterlho, Sebastian Timmerberg</i>	
Renewable Energy Bidding Strategy in Multiple Markets Considering Uncertainty in Generation and Price	592
<i>Kazuki Katsurada, Yu Fujimoto, Akihisa Kaneko, Yasuhiro Hayashi, Shinichiro Minotsu, Ryuichi Shibata</i>	
Comparison of Different Hydropower Equivalent Formulations to Improve High and Low Price Performance.....	597
<i>Uli M. Rahmlow, Mikael Amelin</i>	

Hydrogen-Powered Agriculture: Cost Analysis of Hydrogen Logistics in Rural Areas	603
<i>Tim Wawer, Andreas Stroink</i>	
Wind-Battery Pool Optimal Bidding in German Energy and Secondary Control Reserve Markets.....	609
<i>Gianluca Mancini, Stefanos Delikaroglou, Eleni Stai, Ognjen Stanojev, Gabriela Hug</i>	
Assessing Operational Behaviour of a Hybrid Hydro-Solar Power Plant Providing Security of Supply Under Weather Uncertainty in the Nordics	618
<i>Benjamin J. Trondsen, Oscar M. H. Steen, Alexandra J. Sheppard</i>	
Longitudinal Study of Dispatchable Power Units Trading Strategies on Electricity Spot Markets in Italy.....	624
<i>Guillaume Koechlin, Filippo Bovera, Piercesare Secchi</i>	
Congestion Management in European Electricity Systems Through Aggregators and Local Flexibility Markets: A Systematic Literature Review.....	630
<i>Rawan Akkouch, Sergio P. Menci, Ivan Pavic</i>	
Handling DER Market Participation: Market Redesign Vs Network Augmentation	637
<i>Nuno S. Fonseca, Filipe Soares, José Iria</i>	
Comparing Methods for Sizing and Operating Heat Pumps in Low-Voltage Feeders	643
<i>Célia Masternak, Simon Meunier, Vincent Reinbold, Dirk Saelens, Claude Marchand</i>	
Unlocking Flexibility for Congestion Management with Redispatch Bids: Requirements for a New Bid Structure.....	649
<i>Swasti R. Khuntia, Raymond Smeets</i>	
Stochastic Planning of Energy System Transformation Pathways Under Uncertain Industry Demands	655
<i>Felix Frischmuth, Richard Schmitz, Martin Braun, Philipp Härtel</i>	
Benefits of an Efficient Cross-Zonal Reassessment of Available Intraday Capacities	663
<i>Wilhelm Schweighofer, Thomas Altmann, Milan Vukasovic</i>	
Comparison of SpineOpt and PyPSA in Hydro Power System Modelling.....	668
<i>Yi Liu, Mikael Amelin, Topi Rasku</i>	
Techno-Economic Optimization of Services Stacking for a Battery Participating to Electricity Spot Markets.....	674
<i>Andrea Scrocca, Filippo Bovera, Giuliano Rancilio, Maurizio Delfanti, Matteo Zatti</i>	
Generalize the Bidding Strategy of Distributed Energy Resources for the Balancing Market.....	684
<i>Ryunosuke Imai, Yutaka Ino, Yasuhiro Hayashi, Ayumu Miyasawa, Kojiro Nishioka</i>	
Counter-Intuitive Flows in European Day-Ahead Electricity Market Design: A Case Study of Slovenia.....	689
<i>Miloš Tomic</i>	
Renewable Energy Challenges and Market Dynamics in a Renewables Dominated Power System: The Case of the German Power System	692
<i>Anas Abuzayed, Mario Liebensteiner, Niklas Hartmann</i>	
Optimizing Spatially Dispersed Power-to-Heat Flexibility for Balancing Power Bid Activation in Congested Bidding Zones.....	696
<i>Sebastian Zwickl-Bernhard, Hans Auer</i>	

Applying Spatial Decomposition in Energy System Models.....	701
<i>Lene M. Grübler, Felix Müsgens</i>	
Dynamic Pricing and System Optimization of Integrated Energy System in Industrial Parks Based on Carbon Tax	709
<i>Yuanyuan Deng, Masahiro Mae, Ryuji Matsuhashi</i>	
De-Risking Transformative Technology Operation: Applying the Case of the German CCfD Scheme	716
<i>Robin Blömer, Johannes Eckstein, Robin Blömer</i>	
Electrification of Airports and Air Transport: Airports Becoming Integrated Energy Systems.....	723
<i>Andrei Morch, Lorenzo Laveneziana, Ingvald Erga, Gabriele Restaldo, Mauro Odisio, David Chiaramonti</i>	
Stochastic vs Monte Carlo-Based Bidding Strategy for Sequential Electricity Markets.....	729
<i>Matteo Spiller, Giuliano Rancilio, Filippo Bovera, Marco Merlo</i>	
Implementing the CEP: Options for Balance Responsibility for Active Consumers in the Netherlands.....	735
<i>Aliene Van Der Veen, Eva Winters, George Trienekes, Koen Kok</i>	
Energy Allocation and Settlement in Collective Self-Consumption.....	740
<i>João Mello, Luís Rodrigues, José Villar, João Saraiva</i>	
Bridging Accuracy and Explainability in Electricity Price Forecasting	746
<i>Maria M. Mascarenhas, Mikael Amelin, Hussain Kazmi</i>	
How Feasible is the Transition to a Hydrogen Distribution Network?.....	752
<i>Stella Oberle, Helen Klopstein</i>	
(When) Should We Go for a 5-Minute Temporal Granularity in European Intraday Markets?.....	761
<i>Bente T. Borg, Longjian Piao, Elisa Papadis, Christopher Koch, Christian Linnemann, Christoph Neumann, Johannes Henkel</i>	
Empowering Energy Communities by a User-Centric Model for Self-Managed Congestion via Local P2P and Flexibility Markets	765
<i>Fernando García-Muñoz, Sebastián S. Martín, Josh Eichman</i>	
Coping with Risk Factors in Energy System Transformations - Climate Change Impacts on Nuclear Power Plant Availability in Europe.....	770
<i>Richard Schmitz, Felix Frischmuth, Martin Braun, Philipp Härtel</i>	
Green Hydrogen in the Chemical Industry - Key Factors and Cost Competitiveness.....	777
<i>Lucas Jürgens, Hans Schäfers</i>	
Operation Pattern Analysis of Electric Vehicle Taxis Considering Electricity Market Price.....	782
<i>Raiki Morisako, Masahiro Mae, Ryuji Matsuhashi</i>	
Impact of Price Cap Policy on Concentrating Solar Power Plant Revenue in Electricity Markets	787
<i>María Berbey-Burgos, Darío Pardillos-Pobo, Marta Laporte-Azcué, Pedro Á. González-Gómez, Domingo Santana</i>	
Tangible Overall Economic Benefits with Decentralised Virtual Energy Communities	793
<i>Kalle Pesonen, Jari Kortelainen, Juha Korpijärvi</i>	

A Sensitivity-Based Linear Model for Optimal Dispatch of Local Flexibility	800
<i>Valentin Ilea, Riccardo Nebuloni, Carlo Arrigoni, Filippo Re, Cristian Bovo, Roberto Bonera</i>	
Energy Policy Integration for Sector Coupling: A Scoping Review.....	806
<i>Tuomas Vanhanen, Minna Hanhijärvi</i>	
Economic Evaluation of Electricity and Hydrogen-Based Steel Production Pathways: Leveraging Market Dynamics and Grid Congestion Mitigation Through Demand Side Flexibility.....	815
<i>Manish Khanra, Marian Klobasa, Parag Patil, Daniel Scholz</i>	
Impact of Load Flexibility on Photovoltaic Hosting Capacity in Distribution Networks	821
<i>Goran Veljanovski, Pande Popovski, Metodija Atanasovski, Katerina Bilbiloska, Aleksandra K. Mateska</i>	
The Iberian Mechanism Impact on the Day-Ahead Electricity Prices and on Consumers and Inframarginal Power Producers Welfare.....	826
<i>João Marianito, Jorge Sousa, João Lagarto</i>	
Willingness to Accept Direct Load Control within Socio-Economic Groups	832
<i>Constanze Liepold, Reinhard Madlener</i>	
Comparison of Contracts in Vehicle-to-Load to Benefit Both Retailers and Electric Bus Operators.....	836
<i>Masahiro Mae, Keisuke Abe, Ryuji Matsuhashi</i>	
Efficient Dispatch in Cross-Border Balancing Platforms: Elastic Demand Through Parametric Cost Function Approximation.....	841
<i>Jacques Cartuyvels, Gilles Bertrand, Anthony Papavasiliou</i>	
Novel Multimodal Data for Enhanced Electricity Spot Price Forecasting using a CNN-LSTM Ensemble Learning Model for the Japan Electric Power eXchange (JEPX) Spot Market	847
<i>Ziyang Wang, Masahiro Mae, Ryuji Matsuhashi</i>	
The Potentials of Energy Communities in Supporting Renewable Integration to the Distribution Grid.....	853
<i>Beata Polgari, David Raisz, Adam Sleich, Zoltan Jakab, Andras J. Horvath</i>	
Multi-Energy Systems and Sector Coupling Through Participation in Multi-Markets	858
<i>Edoardo Corsetti, Alberto Vannoni</i>	
The Regionalization Tool: Mapping Future Belgian Energy Needs by Coupling a Long-Term Investment Planning Model with a National Industry Database.....	864
<i>Enya Lenaerts, Negar Namazifard, Nienke Dhondt, Juan C. Laguna, Pieter Valkering</i>	
Impact of COVID-19 and Ukraine-Russia Conflict on the National Energy and Climate Strategies of Portugal and Spain	871
<i>Max A. López-Maciel, Mónica Meireles, José Villar, André Oliveira, Edimar Ramalho, Fátima Lima, Mara Madaleno, Marta F. Dias, Margarita Robaina</i>	
From Port to Policy: Studying Societal Impacts of Seaport Decarbonization	878
<i>Gonçalo Lestre, Margarita Robaina, João Matias, Miguel Oliveira</i>	
TSO-DSO Coordination Under Wind and Solar Power Uncertainty: A Two-Stage Stochastic Programming Approach.....	884
<i>Siri Bjerland, Pedro C. Del Granado, Hanne Grøttum, Ehsan Nokandi</i>	

Model-Based Analysis of Sustainable Energy Transition: A Case Study of Portugal's Regional Wind and Solar Power Generation	892
<i>André R. De Oliveira, Salvador D. Martínez, José V. Collado, Mónica Meireles, Max A. López-Maciel, Fátima Lima, Edimar Ramalho, Margarita Robaina, Mara Madaleno, Marta F. Dias</i>	
Meta-Forecasting for Solar Power Generation: Algorithm-Based Swarm Intelligence.....	897
<i>Souhir B. Amor, Prashanth A. Devi, Felix Müsgens</i>	
Explainable Deep Reinforcement Learning for Multi-Agent Electricity Market Simulations	902
<i>Kim K. Miskiw, Philipp Staudt</i>	
Do Block Orders Matter? Impact of Regular Block and Linked Orders on Electricity Market Simulation Outcomes	911
<i>Johanna Adams, Nick Harder, Anke Weidlich</i>	
Impacts of Climate Change on the European Electricity Market	918
<i>Thorsten Weiskopf, Eric Jahnke, Max Kleinebrahm, Anthony Britto</i>	
Biomass Power Plants in Bosnia and Herzegovina: Potential, Challenges and Economic Analysis	924
<i>Selma Hanjalic, Vahid Helac, Merisa Hanjalic, Nedim Hasanbegovic</i>	
Techno-Economic Analysis of Future Process-Specific Demand Response in European Industries	928
<i>Leandra Scharnhorst, Xinyi Xie, Max Kleinebrahm, Wolf Fichtner</i>	
Modeling and Predicting Constraints in Nordic Flow-Based Market using Open Data.....	938
<i>Alexey Seleznev, Marina Dolmatova</i>	
Impact of Dynamic Tariffs on Local Flexible Loads and Integration of Local Photovoltaic Power	944
<i>Michael Haendel</i>	
Pumped Hydropower Storage for Balancing High Shares of Variable Renewable Generation in Europe	950
<i>Erik Bjørnerem, Magnus Korpås, Christian Naversen, Anders Arvesen</i>	
Incumbent Perspective to the Sustainability Transitions: District Heating Companies and the Rise of Energy Communities.....	957
<i>Marja Heikkinen, Tuomas Vanhanen, Jussi Valta</i>	
Carbon Dioxide Emissions of Transport Sector Transformation Pathways Considering CO2 Emission Budget Allocation Approaches	964
<i>Niklas Wulff, Andreas Meurer, Hans C. Gils, Patrick Jochem</i>	
Economic Assessment of Battery Energy Storage for Frequency Regulation in the Nordic Power Systems.....	971
<i>Meryem Ahouad, Ahmed Sunjaq, Evelina Wikner, Torbjörn Thiringer</i>	
Risk Adverse Optimization on Transmission Expansion Planning Considering Climate Change and Extreme Weather Events - The Texas Case	976
<i>Luiz E. De Oliveira, João T. Saraiva, Phillipe V. Gomes</i>	
Economic Viability Analysis of a Renewable Energy System for Green Hydrogen and Ammonia Production	982
<i>Pedro Félix, Filipe Oliveira, Filipe J. Soares</i>	

Practical Demand Side Management and Demand Response in Large Scale Buildings with Multiple Case Studies	987
<i>Ahmet Köse, Ivan Sukhanov, Mikk Maivel, Aleksei Teplyakov, Hossein N. Hokmabad, Eduard Petlenkov</i>	
Optimizing Local Markets for Ancillary Services Procurement: A Case Study on Flexibility Markets in Italy	992
<i>Alberto Vannoni, Carmine Rodio, Edoardo Corsetti</i>	
Local Energy Markets: Structural Elements and the Effects of Upscaling.....	998
<i>Nikolaos Chrysanthopoulos, Yuen Y. Chan, Goran Strbac</i>	
Strategic Bidding Zone Configuration for Enhanced Grid Efficiency: A Case Study of Germany's Electricity Market.....	1004
<i>Dimitrios Glynos, Thorsten Weiskopf, Lisa Lorenz, Lucas De La Fuente Munita</i>	
Electric Vehicle Charging Implications on Distribution Locational Marginal Prices.....	1010
<i>Sinem Kol, Gokturk Poyrazoglu</i>	
Minimum Offered Volumes in Long-Term Flow-Based Allocations of Transmission Rights.....	1016
<i>Mehdi Madani, Giancarlo Marzano, Martin Starnberger, Marcelo Torres, Yves Langer</i>	
Market-Based Generation Expansion Planning.....	1021
<i>Nikolaos Koltsaklis</i>	
Comparative Analysis of Revenue Generation from Different Photovoltaic Panel Orientations in Wholesale Electricity Markets.....	1027
<i>Nida Riaz, Sami Repo</i>	

Author Index