

2015 12th International Conference on the European Energy Market (EEM 2015)

**Lisbon, Portugal
19-22 May 2015**



**IEEE Catalog Number: CFP1552D-POD
ISBN: 978-1-4673-6693-9**

PG	Paper title	Paper authors
1	Reactive Coordination of Transmission-generation Investment Planning	Tohidi, Yaser; Hesamzadeh, Mohammad Reza; Ostman, Kristina
6	Classification of Economic Approaches for Smart Stability	Vogler, Sandro; Keller, Corinne; Manser, Daniel; Wache, Holger
11	Profitability Measures and Cost Minimization in Electricity Generation Investments	Campos, Fco. Alberto; Villar, Jose; Cervilla, Carles
16	Integrating regional electricity markets towards a single European market	Ouriachi, Amalia; Spataru, Catalina
21	Evaluation of the Impact of Storage Systems on Grid Electricity Demand in the German Context	Metz, Dennis; Saraiva, João Tomé
26	Customer Interruption Costs Calculation of Finnish Electricity Customers	Küfeoğlu, Sinan; Prittinen, Samuel; Lehtonen, Matti
31	Cross-Border Transmission Planning in Two Adjacent Electricity Market Systems	Lin, Jeremy
36	A Remark on Forecasting Spikes in Electricity Prices	Koban, Vika; Zlatar, Iztok; Pantoš, Miloš; Omladič, Matjaž
41	Probabilistic analysis of dispersed generation and smart grid technologies on electric power distribution networks	Rejc, Matej; Davidov, Sreten; Pantoš, Miloš
46	Energy-Only Markets with Deferrable Demand	Papavasiliou, Anthony; Smeers, Yves
51	Role of Public Regulators in Demand Response Business Ecosystem - case New York State Electric Power Market	Koivisto, Vesa; Järventausta, Pertti; Mäkinen, Saku J.
56	Agent-based Short-Term Load and Price Forecasting Using a Parallel Implementation of an Adaptive PSO-Trained Local Linear Wavelet Neural Network	Kintsakis, Athanassios M.; Chrysopoulos, Antonios; Mitkas, Pericles A.
61	Energy management using the business model approach	Matusiak, Bozena Ewa; Piotrowski, Krzysztof; Melo, Francisco
66	Definition of parameters for impact evaluation of no programmable energy sources on islands: a comparison between Sicily and Corsica	Tina, Giuseppe Marco; Passarello, Gianluca; Notton, Gilles
71	LNG Supply for Lebanon's Power Sector in light of the Pending Offshore Gas Discoveries and the World's Falling Oil Prices	Hamdan, Hassan Abdallah; Khoury, Ricardo
76	EFFECTS OF THE SEASONAL SUNLIGHT VARIATION ON PREDICTIONS OF THE SOLAR-AEOLIC POTENTIAL FOR POWER GENERATION	Marafiga, Eduardo Bonnuncielli; Felix, Farret Albert; Peixoto, Nirvan
81	Optimal Investment Planning for Power Systems Under Performance-Based Regulation	Božič, Dušan; Pantoš, Miloš
86	A Virtual Reservoir Electricity Market Design Applied to the Brazilian System Using an Agent Based Model	Calabria, Felipe Alves; Saraiva, João Tomé; Rocha, Ana Paula
91	Simulation of the operation of hydro plants in an electricity market using Agent-Based Models	Sousa, José Carlos; Saraiva, João Tomé
96	The impact of Energy Policy 2030 on the edge countries. Case study for Poland.	Lyzwa, Wojciech; Wierzbowski, Michal; Olek, Blazej; Stuchala, Filip; Mielczarski, Wladyslaw

PG	Paper title	Paper authors
101	How to achieve resource adequacy during Energiewende?	Schweinitz, Andreas
105	Volatility transmissions in the Spanish intra-day electricity market	Ciarreta, Aitor; Zarraga, Ainhoa
110	Ensemble-Based Estimation of Wind Power Forecast Uncertainty	Pinho da Silva, Nuno; Rosa, Luís; Pestana, Rui
115	Economic Impact of Adaptation to Climate Change in Iceland's Energy Supply Sector	Shafiei, Ehsan; Davidsdottir, Brynhildur; Leaver, Jonathan; Stefansson, Hlynur; Asgeirsson, Eyjolfur Ingi
120	CROSS OWNERSHIP AND CONCENTRATION IN THE IBERIAN ELECTRICITY MARKET: LIBERALIZATION AND INTEGRATION EXPERIENCE	Ferreira Dias, Marta; Magueta, Daniel
125	Economic Evaluation of Generation and Storage Solutions in Low Voltage End User Installations	Soares, Ruben Almeida; Saraiva, Joao Tome
130	Electricity production as an effective solution for associated petroleum gas utilization in the reformed Russian electricity market	Vasileva, Evgeniia; Viljainen, Satu; Gore, Olga; Tynkkynen, Veli-Pekka
135	Nuclear power: what optimal contribution to the French electric power mix?	Cany, Camille; Mansilla, Christine; Mathonnière, Gilles; da Costa, Pascal
140	Clean energy individual firm's stock prices, oil, technology and carbon	Madaleno, Mara; Pereira, Alfredo Marvão
145	Energy Price Classification in North Brazilian Market using Decision Tree	Filho, Jose Carlos Reston; AFFONSO, CAROLINA Mattos; Oliveira, Roberto Celio Limao
150	Implementation of the Energy Efficiency Directive and the Impact on District Heating Regulation	Zigurs, Aris; Sarma, Ugis; Ivanova, Polina
155	DECENTRALISED MARKET AGENT – ACCESSING CENTRAL MARKETS WITH DEMAND SIDE MANAGEMENT TECHNOLOGIES	Thomsen, Jessica; Hartmann, Niklas; Roulland, Arnaud; Kellermann, Martin; Schlegl, Thomas
160	Profitability of Photovoltaic Battery Systems Considering Temporal Resolution	Ried, Sabrina; Jochem, Patrick; Fichtner, Wolf
165	Hydrological Risk Integration in a Hydro Power Plant Real Options Analysis	Costa Pereira, Maria Elisabete; Sousa, José Carlos; Nunes, Ana Cristina; Mendes, Virgílio
170	Electricity storage with liquid fuels in a zone powered by 100% variable renewables	Léonard, Grégoire; François-Lavet, Vincent; Ernst, Damien; Meinrenken, Christoph; Lackner, Klaus
175	Distributed Generation: Energetic Potentials of Mato Grosso State and use of Asynchronous Technology in Microgeneration	Piereti, Saulo Augusto Ribeiro; Lenço, Paulo; Metello, Elzio; de Oliveira Silva, Eudinei; Ribeiro de Carvalho Malheiro Gomes, Teresa Irene; Rondina, José Mateus; Martins Neto, Luciano
180	Forecasting hourly electricity prices for bidding optimization	Klæboe, Gro
185	REMIT and the Monitoring Provisions of the EU energy markets	Medved, Tomi; Lakić, Edin; Zlatar, Iztok; Gubina, Andrej F.
190	RES effects in Italian Wholesale Electricity Market	Parisio, Lucia; Gianfreda, Angelica
195	A cobweb model for electricity markets	Parisio, Lucia; Cavalli, Fausto; Naimzada, Ahmad

PG	Paper title	Paper authors
200	Possibility of Thermal Energy Storage System Implementation at CHP plant	Ivanova, Polina; Linkevics, Olegs; Cers, Aivars; Jaundālders, Sigurds
205	The Evolution of Bidding Strategies in Spain following the Introduction of Renewable Energy	Armstrong, Margaret; Costa, Leticia; Galli, Alain
210	The economic sustainability of renewable energies	Bruno, Clementina; Erbetta, Fabrizio; Fraquelli, Giovanni
214	The Impact of Short Term Storage on Power System Operation	Devlin, Joseph; Li, Kang; Higgins, Paraic; Foley, Aoife
219	Modeling of power reserves and RES in optimization of Polish energy mix	Lyzwa, Wojciech; Przybylski, Jakub; Wierzbowski, Michal
224	An approximation of counterparty credit risk in long term power purchase agreements (PPAs)	Edge, Paul Michael
228	CO2 Emissions, Energy Consumption and Economic Growth in the EU Countries: Evidence from Threshold Cointegration Analysis	Piłatowska, Mariola; Włodarczyk, Aneta; Zawada, Marcin
233	Capacity Remuneration Mechanisms and the Transition to low-carbon Power Systems	Höschle, Hanspeter; De Jonghe, Cedric; Six, Daan; Belmans, Ronnie
238	Distribution network tariffs – the effect of decentralized generation and auto-consumption	Friedrichsen, Nele; Pudlik, Martin; Klobasa, Marian
243	Wind Generation Influence on Market Splitting: The Iberian Spot Electricity Market	Figueiredo, Nuno Carvalho; Silva, Patrícia Pereira da; Cerqueira, Pedro
248	Design and On-Sun Testing of a Hybrid PVT Prototype Using a Nanofluid-based Selective Absorption Filter	Crisostomo, Felipe; Becker, Justin; Mesgari, Sara; Hjerrild, Natasha; Taylor, Robert A
253	Economics and Geopolitics of Natural Gas: Pipelines versus LNG	Paltsev, Sergey
258	Demand Side Management in Open Electricity Markets from Retailer Viewpoint	Honkapuro, Samuli; Valtonen, Petri; Tuunanen, Jussi; Partanen, Jarmo; Järventausta, Pertti
263	A comparative value of electricity storage within GB market mechanisms	Poonyth, Amish Dev; Coker, Phil; Torriti, Jacopo
268	Open district heating for Espoo city with marginal cost based pricing	Syri, Sanna Marianna; Mäkelä, Henri; Rinne, Samuli Rafael; Wirgentius, Niko
273	Forecasting Photovoltaic Energy using MEWMA models	Caro, Eduardo; Cara, Francisco Javier; Juan, Jesus
278	Analysis of international approaches to integrate electric vehicles into energy market	Illing, Bjoern; Warweg, Oliver
283	On the profit variability of power plants in a system with large-scale renewable energy sources	Jaehnert, Stefan; Korpås, Magnus; Doorman, Gerard; Hyldbakk, Ingri M.
288	A conjectural supply function equilibrium in energy and reserve for a weekly horizon	Villar, Jose; González, Pablo; Campos, Fco. Alberto; Díaz, Cristian
293	Forecast of the Bidding Curve of Generation Players in the Iberian Electricity Market	Soares, Ruben Almeida; Saraiva, Joao Tome; Fidalgo, José Nuno; Martins, Berto

PG	Paper title	Paper authors
298	An assessment of the newly proposed strategic reserve in Germany	Bublitz, Andreas; Renz, Lea; Keles, Dogan; Genoese, Massimo; Fichtner, Wolf
303	Trends in the German PCR Market: Perspectives for Battery Systems	Hollinger, Raphael; Diazgranados, Luis Miguel; Erge, Thomas
308	Microgrid's Energy Management Systems: A Survey	Serna-Suárez, Iván David; Ordóñez-Plata, Gabriel; Carrillo-Cacedo, Gilberto
314	A Stochastic Approach to the Feasibility Study for Overhead Power Lines	Beryozkina, Svetlana; Petrichenko, Lubov; Sauhats, Antans; Jankovskis, Nauris; Neimane, Viktoria
319	A semi-decentralized solution for the economic dispatch with transmission losses using a JASON-based multiagent system	Serna-Suárez, Iván David; Ordóñez-Plata, Gabriel; Carrillo-Cacedo, Gilberto
324	Ensuring security of electricity supply: how capacity obligation impacts investments including demand response opportunities?	Petitot, Marie
329	Robust smooth transition threshold autoregressive models for electricity prices	Grossi, Luigi; Nan, Fany
334	Day-ahead Market Structures for Co-optimized Energy and Reserve Allocation	Sörös, Péter M.; Divényi, Dániel; Polgári, Beáta; Raisz, Dávid; Sleisz, Ádám
339	New Offer Structure for a Co-optimized Day-ahead Electricity Market	Polgári, Beáta; Sörös, Péter; Divényi, Dániel; Sleisz, Ádám; Raisz, Dávid
344	Modelling the Interdependencies of Storage, DSM and Grid-extension for Europe	Krüger, Christine; Buddeke, Mathis; Merten, Frank; Nebel, Arjuna
349	A methodology to assess the impact of capacity remuneration mechanisms in a detailed power system model	Jaehnert, Stefan; Wolfgang, Ove; Doorman, Gerard
354	TSC's Coordinated Intraday Capacity Calculation Concept	Besselink, Roy; Dudoignon, David; Ringelband, Tilman; Schavemaker, Pieter; Schwachheim, Julius; Sikora, Roman
359	Forecasting price spikes in European day-ahead electricity markets using decision trees	Fragkioudaki, Anna; Marinakis, Adamantios; Cherkaoui, Rachid
364	Challenges in the Formulation of Complex Orders on European Power Exchanges	Sleisz, Ádám; Divényi, Dániel; Polgári, Beáta; Sörös, Péter; Raisz, Dávid
369	Environmental Policy on Dirty and Ecological Technology	Meireles, Mónica; Soares, Isabel; Afonso, Oscar
373	Business cases for electric heat pumps under different day-ahead price scenarios	Schachter, Jonathan A.; Good, Nicholas; Mancarella, Pierluigi
378	Dynamic Models of Solar PV Systems for Use in Real-time Training Simulators	Raoofsheibani, Davood; H. Wellssow, Wolfram
383	Renewable energy expansion and interaction in Europe: High resolution of RES potentials in energy system modeling	Kost, Christoph; Junne, Tobias; Senkpiel, Charlotte; Hartmann, Niklas; Schlegl, Thomas; Zampara, Marilena; Capros, Pantelis
389	Economic and Environmental Efficiency in Europe: evidence from a new Stochastic Frontier Model	Robaina Alves, Margarita Matias; Moutinho, Victor; Macedo, Pedro
393	Energy and reserve co-optimization in power system with wind and PV power	Vasilj, Josip; Jakus, Damir; Sarajcev, Petar

PG	Paper title	Paper authors
398	PV power forecast error simulation model	Vasilj, Josip; Sarajcev, Petar; Jakus, Damir
403	Innovative grid and generation technologies for future European power system	Máslo, Karel; Pestana, Rui; Strunz, Kai; Moroni, Silvia; Centeno, Pablo
408	Time of use tariff design for domestic customers integrating the management goals of efficient energy purchase and delivery	Andruszkiewicz, Jerzy; Lorenc, Jozef; Borowiak, Waldemar; Michalski, Artur
413	Consequences of the UK Energy Market Reform on the Development of Carbon Capture Transport and Storage	Mendelevitch, Roman; Oei, Pao-Yu
419	An Economic and Regulatory Framework for Insular Grids: The Case of Canary Islands.	Meneses, Pilar; Contreras, Javier
424	The Efficiency of the Regulation for Horizontal Mergers among Electricity Distribution Operators in Norway	AGRELL, Per J.; BOGETOFT, Peter; GRAMMELTVEDT, Thor Erik
429	Different Storages and Different Time-Variable Operation Modes of Energy Storages in Future Electricity Markets	Böcker, Benjamin; Weber, Christoph
435	Improving the efficiency of a hydro-thermal power system utilizing demand-side flexibility	Song, Meng; Amelin, Mikael
440	Norwegian pumped hydro for providing peaking power in a low-carbon European power market - Cost comparison against OCGT and CCGT	Korpås, Magnus; Wolfgang, Ove; Aam, Sverre
445	Improved Modelling of Demand and Generation in High Resolution Simulations of Interconnected Power Systems	Singh, Antriksh; Eser, Patrick; Chokani, Ndaona; Abhari, Reza S.
450	Contracting of Energy: An Analysis for Small-Sized Distributors	Kummer, Eduardo Henrique; Knorr, Eduardo; Santos, Moises; Neto, Nelson Knak
453	The Trade-Off Between Technology Deployment and Enviro-Economic Benefits in Smart Buildings	Louis, Jean-Nicolas Pierre Paul; Leiviskä, Kauko Johannes; Pongrácz, Eva
458	Impact of balancing energy on network congestions	Sprey, Jens D.; Drees, Tim; vom Stein, Denis; Moser, Albert
464	Virtual Power Plants: Definition, Applications and Barriers to the Implementation in the Distribution System	Plancke, Glenn; De Vos, Kristof; Belmans, Ronnie; Delnooz, Annelies
469	An Optimal Scheduling for Aggregators in Smart Grids	Ayón Flores, Xiaolin; Usaola García, Julio
474	Bidding Strategy for Risk-Averse Producers in Transmission-Constrained Electricity Markets	Kardakos, Evangelos G.; Simoglou, Christos K.; Vagropoulos, Stylianos I.; Bakirtzis, Anastasios G.
479	Econometric analysis of the wood pellet market in Austria	Kristöfel, Christa; Morawetz, Ulrich B.; Strasser, Christoph; Schmid, Erwin
484	Multicriteria Scenario Analysis on Electricity Production	Santos, Maria João; Ferreira, Paula; Araújo, Madalena
489	Agent-Based Price Simulation of the German Wholesale Power Market	Maaz, Andreas; Grote, Fabian; Moser, Albert
494	The value of considering uncertain fuel prices in the profitability evaluation of future HVDC links between the Nordic system and continental Europe	Stadler Kjetså, Erika; Doorman, Gerard; Mo, Birger

PG	Paper title	Paper authors
499	Modeling of Electricity Pricing in European Market Simulations	Grote, Fabian; Maaz, Andreas; Drees, Tim; Moser, Albert
504	Price-Maker Wind Power Producer Participating in a Joint Day-Ahead and Real-Time Market	Delikaraoglou, Stefanos; Papakonstantinou, Athanasios; Ordoudis, Christos; Pinson, Pierre
509	Aggregated Load Scheduling for Residential Multi-Class Appliances: Peak Demand Reduction	Ghasem Azar, Armin; Hylsberg Jacobsen, Rune; Zhang, Qi
515	Long and Short-run relationship among electricity and fossil fuel prices in the European industry sector	Madaleno, Mara; Moutinho, Victor; Mota, Jorge
521	Calculating Transmission Reliability Margins based on Statistical Data	Müller, Peter; Bammert, Jochen; Schavemaker, Pieter
526	Leadership Relations in Spanish Electricity Market	Muñoz San Miguel, Jesús
529	Market Signals and Investment in Intermittent Renewables	Oliveira, Tiago Francisco Monteiro
534	A comprehensive approach to assessing PV system economics and opportunities for PV policies	Yu, Hyun Jin Julie; Popiolek, Nathalie; Geoffron, Patrice
539	The idiosyncratic bidding strategies of electricity producers in Sicily and its impact on evaluating GHG emissions	Armstrong, Margaret; Khmel, Daria; Rivière, Philippe; Galli, Alain
544	Market equilibrium in the European electricity market. A methodology to reduce the network configurations	Sánchez-González, Guillermo; Bello, Antonio; Delgadillo, Andrés; Reneses, Javier
548	Future provision of control reserve from offshore wind farms: An analysis of benefits and barriers	PAPAEFTHYMIU, GEORGIOS; KAKORIN, ANDREJ; LAURISCH, LILIAN; NABE, CHRISTIAN; VAN DOORN, JORIS; VAN DER MEIJDEN, MART; MEULENBROEKS, JAN-WILLEM
553	Bi-level Optimization of Electricity Tariffs and PV Distributed Generation Investments	Cervilla, Carles; Villar, José; Campos, Fco. Alberto
558	Aggregation of Demand Side flexibility in a Smart Grid: A review for European Market Design	Eid, Cherrelle; Codani, Paul; Chen, Yurong; Perez, Yannick; Hakvoort, Rudi
563	Optimal allocation of wind parks considering Wind and Load uncertainties using Genetic Algorithm	Borges, Sebastiao; AFFONSO, CAROLINA; Oliveira, Roberto Célio; Filho, Jose Carlos Reston
568	The impact of wind generation on the mean and volatility of electricity prices in Portugal	Pereira, Joao Pedro; Rodrigues, Paulo
573	Gap Analysis of Future Energy Grids	Henein, Sawsan; Zegers, Antony; Übermasser, Stefan
577	Optimizing Neighborhood Consumption of Renewables through Clustering and H2 Storage: An Economic Assessment of an Austrian Community	Blöchle, Max; Zucker, Gerhard; Xypolytou, Evangelia; Leber, Thomas; Prügler, Wolfgang; Rührlinger, Thomas
582	Congestion Management in Electricity Markets with Uncertain Infeeds and Commitment Decisions	Zigkiri, Alexandra; Baringo, Luis; Andersson, Göran; Zima, Marek
587	Big Data Analytic Empowered Grid Applications - Is PMU a big data issue?	Yang, Bo; Xie, Da; Saito, Nao; Kokai, Yutaka; Yamazaki, Jun
591	The UK Electricity Demand Side Response: carbon savings analysis	Lau, Eng Tseng; Yang, Qingping; Taylor, Gareth; Stokes, Lee; Forbes, Alistair; Livina, Valerie

PG	Paper title	Paper authors
595	Impact of LNG Imports and Shale Gas on a European Natural Gas Diversification Strategy	Hauser, Philipp; Möst, Dominik
600	Toward the integration of balancing markets	Zani, Alessandro; Auer, Hans; Rossi, Stefano; Migliavacca, Gianluigi
605	Assessment of the potential of Battery Energy Storage Systems in current European markets designs	Miranda, Ismael; Silva, Nuno; Bernardo, Alberto Maia
610	Looking Deeper into Residential Electricity Consumption Profiles: The case of Évora	Gouveia, João Pedro; Seixas, Júlia; Mendes, Luis; Luo, Shiming
615	Principle Component forecast averaging - application to the UK electricity market	Maciejowska, Katarzyna; Nowotarski, Jakub
620	Techno-economic comparison of storage vs. demand response strategies in distributed generation systems	Lorenzi, Guido; Silva, Carlos A. Santos
625	Hydropower Scheduling in Day-ahead and Balancing Markets	Fodstad, Marte; Henden, Arild Lote; Helseth, Arild
630	DCOPF based Optimal Transmission Capacity Reservation for FRR Exchange using Implicit and Sequential Market Clearance	Gebrekiros, Yonas Tesfay; Doorman, Gerard; Jaehnert, Stefan
635	Investigating the Conditions for Establishing a Regional Power Exchange	Krsteovski, Petar; Borozan, Vesna; Krkoleva Mateska, Aleksandra; Skanlund, Anders Berg; Rennesund, Marius Holm; Wolst, Justin; Angelov, Jordancho; Magnus, Eivind; Taleski, Rubin
640	Model based analysis of the EU power system based on RES - a case study for Greece and Germany	Capros, Pantelis; Zampara, Marilena; Tasios, Nikos; Papadopoulos, Dimitris; Kost, Christoph; Hartmann, Niklas; Senkpiel, Charlotte
645	Technical constraints and flexibility management in smart grids	Moreno, M. Ángeles; Usaola, Julio
650	Harmonising RES-E Support Schemes Using Design Elements	Iychettira, Kaveri; Linares, Pedro; Hakvoort, Rudi
655	Optimal Bidding Strategy for Demand Response Aggregator in Day-Ahead Markets via Stochastic Programming and Robust Optimization	WEI, MING; ZHONG, JIN
660	Optimal Energy Management System For Future Microgrids with Tight Operating Constraints	Nemati, Mohsen; Zöllner, Tomas; Tenbohlen, Stefan; Tao, Liang; Mueller, Holger; Braun, Martin
666	A methodology to assess the impact of 2030 EU climate and energy targets on the national power systems: the Italian case	Lanati, Fabio; Gelmini, Alberto; Benini, Michele; Gallanti, Massimo
671	Options for Day-Ahead Market and Power Exchange in the Republic of Macedonia	Krkoleva Mateska, Aleksandra; Skanlund, Anders Berg; Krsteovski, Petar; Borozan, Vesna; Rennesund, Marius Holm; Wolst, Justin; Angelov, Jordancho; Magnus, Eivind; Taleski, Rubin
676	Efficient Energy Only Markets	Aghaie, Hamid; Haas, Reinhard
681	Organizing flexibility: how to adapt market design to the growing demand for flexibility	De Vries, Laurens J.; Verzijlbergh, Remco A.
686	A bottom-up method for feasible wind energy potential assessments, turbine and park placement	Jäger, Tobias; McKenna, Russell; Fichtner, Wolf
691	Economic analysis of battery electric storage systems operating in electricity markets	Heredia, F.-Javier; Riera, Jordi; Mata, Montserrat; Escuer, Joan; Romeu, Jordi

PG	Paper title	Paper authors
696	Scenario-Based Real-Time Demand Response Considering Wind Power and Price Uncertainty	WEI, MING; ZHONG, JIN
701	Day-ahead electricity demand forecasting with nonparametric functional models	SHAH, ISMAIL; Lisi, Francesco
706	Assessing the impact of electricity interconnections to achieve the EU targets for CO2 emissions reduction	Pina, Andre; Baptista, Patricia; Amorim, Filipa
711	Applying Copulas Functions for Wind and Hydro Complementarity Evaluation: a Brazilian Case.	Steinle Camargo, Luiz Armando; Molnár, Peter; Soares Ramos, Dorel
717	Possible role of Power-to-Gas in future energy systems	Belderbos, Andreas; Delarue, Erik; D'haeseleer, William
722	Innovation by Distribution System Operators: more than a question of remuneration	Gerard, Helena; Six, Daan; Rivero Puente, Enrique
727	Electricity demand profile prediction based on household characteristics	Viegas, Joaquim L.; Vieira, Susana M.; Sousa, João M. C.; Melicio, Rui; Mendes, Victor
732	Probabilistic welfare analysis for system adequacy - analytical and numerical insights	Bellenbaum, Julia; Weber, Christoph
737	Lessons from the First GB Capacity Market Auction	Barillas, Ana Isabel; Cohen, Robin; Sukthaworn, Nanthawit
743	Informational Efficiency on the Nordic Electricity Market – the Case of European Price Area Differentials (EPAD)	Spodniak, Petr
748	Multi-agent Retail Energy Markets: Bilateral Contracting and Coalitions of End-use Customers	Lopes, Fernando; Algarvio, Hugo; Santana, João
753	Toward a Model for the Swedish-Norwegian Electricity Certificate Market	Frogner, Jens Sveen; Hustveit, Magne; Fleten, Stein-Erik
758	Optimal scheduling of a pumped storage hydro unit in the day-ahead and secondary reserve electricity market	Lagarto, João; Fernandes, Filipe; A. M. Sousa, Jorge; Santana, João; Martins, Berto
763	Optimization of Reactive Power for Active Distribution Network with Power Electronic Transformer	ZHOU, HUI
768	Energy Storage Operation in the Day-Ahead Electricity Market	Pandzic, Hrvoje; Kuzle, Igor
774	Modeling Start-Up Times in Unit Commitment by Limiting Temperature Increase and Heating	Huber, Matthias; Silbernagl, Matthias
779	Demand Aggregator Flexibility Forecast: Price Incentives Sensitivity Assessment	Kotsis, Grigorios; Moschos, Ioannis; Corchero, Cristina; Cruz, Miguel
784	Evaluation of Simplified Flexibility Evaluation Tools Using a Unit Commitment Model	Quoilin, Sylvain; Nijs, Wouter; Hidalgo Gonzalez, Ignacio; Zucker, Andreas; Thiel, Christian
789	The Impact of Different Flexibility Options on Future Electricity Spot Prices in Germany	Brunner, Christoph; Möst, Dominik
795	Complexity of demand response integration in European electricity markets	Koliou, Elta; Abdul Muhaimin, Tariq; Hakvoort, Rudi A.; Kremers, Robbert

PG	Paper title	Paper authors
800	Operational flexibility provided by storage in generation expansion planning with high shares of renewables	van Stiphout, Arne; De Vos, Kristof; Deconinck, Geert
805	A stochastic programming model for the tertiary control of microgrids	Citores, Leire; Corchero, Cristina; Heredia, F. Javier
811	How sustainability concerns have been taken into account on electricity systems regulation policy? Some insights from four European countries.	Cunha, Jorge
816	Are Locational Marginal Prices a Good Heuristic to Divide Energy Market into Bidding Zones?	Jakubek, Marcin; Wawrzyniak, Karol; Kłos, Michał; Blachnik, Marcin
820	Investment Risk Analysis for Photovoltaic Power Plant in the Free Contracting Environment	Neto, Daywes Pinheiro; Domingues, Elder Geraldo; Paulo Coimbra, Antonio; Almeida, Anibal Traça; Calixto, Wesley Pacheco
825	Electricity auctions: a European view on markets and practices	Mazzi, Nicolò; Lorenzoni, Arturo; Rech, Sergio; Lazzaretto, Andrea
830	Comparing wind generation profiles: A circular data approach	Martins, Ana Alexandra; Carvalho, Alda; Sousa, Jorge A. M.
835	Local Communities in the Energy Market: A Place-Based Perspective on Unconventional Hydrocarbon Development	Milicevic, Milos; Steger, Tamara Shevaun
841	Evaluation of Investments Profitability in Conventional Power Generation Sector in Estonia	Pulkkinen, Svetlana
846	Dynamic Dimensioning of Frequency Restoration Reserve Capacity based on Quantile Regression	Jost, Dominik; Braun, Axel; Fritz, Rafael
851	Synthetic wind speed time series with Markov and ARMA models: comparison for different use cases	Rab, Nikolaus; Leimgruber, Fabian; Esterl, Tara
856	Increasing flexibility of combined heat and power plants with power-to-heat	Scholz, Daniel; Müsgens, Felix
861	The Effect of Variable Renewable Energy Sources on the Volatility of Wholesale Electricity Prices –A Stylized Full Cost Approach	Möbius, Thomas; Müsgens, Felix
866	Barriers regarding Scalability and Replicability of Smart Grid Projects	May, Kristof; Sigrist, Lukas; Vingerhoets, Pieter
871	Baltic Transmission Expansion Planning Considering Wholesale Electricity Market	Obushevs, Artjoms; Oleinikova, Irina; Mutule, Anna
876	Demand for flexibility in the power system under different shares of renewable generation	Spisto, Amanda; Möbius, Thomas; Quoilin, Sylvain
881	Impact of Demand Response on the pan-European system development: the GridTech analysis	L'Abbate, Angelo; Rossi, Stefano; Calisti, Roberto; Careri, Francesco; Zani, Alessandro; Auer, Hans
886	Demonstration of Market-Based Real-Time Electricity Pricing on a Congested Feeder	Larsen, Emil Mahler; Pinson, Pierre; Giannopoulos, Georgios
891	How renewable energy promotion impacts the Portuguese economy?	Fortes, Patrícia; Proença, Sara; Seixas, Júlia
896	Decomposition of Power Flow Used for Optimizing Zonal Configurations of Energy Market	Kłos, Michał; Wawrzyniak, Karol; Jakubek, Marcin

PG	Paper title	Paper authors
901	Assessing critical metal needs for a low carbon energy system in 2050	Simoes, Sofia; Fortes, Patrícia; Dias, Luís; Seixas, Júlia
906	Implementation of a platform for Day-Ahead Market modeling: case study of Sicilian future scenarios	Tina, Giuseppe Marco; Pecoraro, Gaetano; Quaciari, Cristiano; Carlini, Enrico Maria
911	The Value of Electric Vehicles in the Context of Evolving Electricity Markets	Gough, Becky; Rowley, Paul; Khan, Sarwar; Walsh, Chris
916	Dual technology energy storage system applied to two complementary energy markets	Lopes Ferreira, Helder Miguel; Gibescu, Madeleine; Stankova, Katerina; Kling, Wil; Lopes, Joao Peças