



13th INTERNATIONAL CONFERENCE ON THE EUROPEAN ENERGY MARKET

Final Programme

| | June 6 Monday | June 7 Tuesday | June 8 Wednesday | June 9 Thursday | | | | | | | | | |
|---------------|------------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------------------|-------------------|
| 09:00 – 10:30 | | Plenary Session Auditorium A | Plenary Session Auditorium A | Plenary Session Auditorium A | | | | | | | | | |
| 10:30 – 11:00 | | Coffee Break | Coffee Break | Coffee Break | | | | | | | | | |
| 11:00 – 12:30 | Registration | S1 T1 B020 | S2 T2 B023 | S3 T3 B026 | S4 T7 B029 | S13 T1 B020 | S14 T2 B023 | S15 T3 B026 | S16 T4 B029 | S25 T1 B020 | S26 T2 B023 | S27 T3 B026 | S28 T4 B029 |
| 12:30 – 14:00 | | Lunch | | Lunch | | Lunch | | | | | | | |
| 14:00 – 15:30 | Opening Session Auditorium A | S5 T1 B020 | S6 T2 B023 | S7 T3 B026 | S8 T4 B029 | S17 T1 B020 | S18 T2 B023 | S19 T3 B026 | S20 T4 B029 | S29 T1 B020 | S30 T2 B023 | S31 T3 B026 | S32 T4 B029 |
| 15:30 – 16:00 | Coffee Break | Coffee Break | | Coffee Break | | Coffee Break | | Coffee Break | | | | | |
| 16:00 – 17:30 | Plenary Session Auditorium A | S9 T1 B020 | S10 T2 B023 | S11 T4 B026 | S12 T5 B029 | S21 T1 B020 | S22 T2 B023 | S23 T4 B026 | S24 T5 B029 | S33 T1 B020 | S34 T2 B023 | S35 T4 B026 | S36 T6 B029 |
| 17:30 - 18:00 | | | | | | | | | | | | Closing Session Auditorium A | |
| 18:00 - 19:00 | Welcome Cocktail | | | | | | | | | | | | |
| 20:00 - 23:00 | | | | | | | | | | | | Gala Dinner | |

Topics

| | |
|----|--|
| T1 | Electricity market design, regulation and monitoring |
| T2 | Electricity markets & grid planning and operation |
| T3 | Power generation and renewable energies |
| T4 | Modelling, simulation and forecasting of energy and carbon markets |
| T5 | Implementation of the energy and climate European policy |
| T6 | Present and future of gas and coal markets |
| T7 | Competition law, energy rules and institutions |

Programme

Monday, June 6

Opening Session

June 6 - 14:00 – 15:30 – Room Auditorium A

Prof. Dr. Sebastião Feyo de Azevedo, Rector of Universidade do Porto (to be confirmed)

Prof. Dr. João Falcão e Cunha, Dean of Faculdade de Engenharia da Universidade do Porto

Prof. Dr. José Manuel Mendonça, Chairman of the Board of INESCTEC

Dr. Jorge Seguro Sanches, Secretary of State for Energy, Portuguese Government (to be confirmed)

Prof. Dr. Wladyslaw Mielczarski, Chair of the Steering Committee of EEM

Prof. Dr. João Tomé Saraiva, Chair of EEM 2016

Plenary Session

June 6 - 16:00 – 17:30 – Room Auditorium A

Prof. Dr. Jorge Vasconcelos

New markets or no markets? The electricity future between creative destruction and remonopolization

Prof. Dr. Tomas Gomez

The utility of the future

Tuesday, June 7

Plenary Session

June 7 - 9:00 – 10:30 – Room Auditorium A

Prof. Dr. Goran Strbac

Value of Flexibility and System Externalities of Low-Carbon Generation Technologies

S01 - Electricity market design, regulation and monitoring: EU Energy Market

June 7 - 11:00 – 12:30 – Room B020

Chair: Wladyslaw Mielczarski, Technical University of Lodz, Lodz, Poland

11796 Single European Energy Market: progress and some concerns

Marta Ferreira Dias, GOVCOPP, DEGEI, Universidade de Aveiro, Portugal

10613 Novel Energy Exchange Models and a Trading Agent for Community Energy Market

Didiek S. Wiyono, University of Southampton, United Kingdom

Sebastian Stein, University of Southampton, United Kingdom

Enrico H. Gerding, University of Southampton, United Kingdom

10596 The value of flexibility and the effect of an integrated European Intraday-market

Steffen Fattler, Forschungsstelle für Energiewirtschaft e.V., Germany

Christoph Pellinger, Forschungsstelle für Energiewirtschaft e.V., Germany

10573 Assessment of Integrated Community Energy Systems

Binod Prasad Koirala, Delft University of Technology, Netherlands

José Pablo Chaves Ávila, Universidad Pontificia Comillas, Spain

Tomás Gómez, Universidad Pontificia Comillas, Spain

Rudi A. Hakvoort, Delft University of Technology, Netherlands

10481 Design of European Balancing Power Markets

Fabian Ocker, Karlsruhe Institute of Technology (KIT), Germany

Sebastian Braun, Technische Universität München/EnBW Energie Baden Württemberg, Germany

Christian Will, Karlsruhe Institute of Technology (KIT), Germany

S02 - Electricity markets & grid planning and operation: Electric Vehicles and flexibility in the Grid

June 7 - 11:00 – 12:30 – Room B023

Chair: Gerard Doorman, Statnett / NTNU, Norway

10637 Pricing of Demand Flexibility: Exploring the Impact of Electric Vehicle Customer Diversity

Florian Salah, Karlsruhe Institute of Technology, Germany

Alexander Schuller, FZI Research Center for Information Technology, Germany

Manuel Maurer, Karlsruhe Institute of Technology, Germany

Christof Weinhardt, Karlsruhe Institute of Technology, Germany

10622 Techno-Economic Evaluation of Electric Vehicles as Flexible Load for Providing Grid Services

Hamza Bokhari, Ilmenau University of Technology, Germany

Steffen Schlegel, Ilmenau University of Technology, Germany

Oliver Warweg, Fraunhofer IOSB-AST, Germany

Alexander Arnoldt, Fraunhofer IOSB-AST, Germany

Björn Illing, Fraunhofer IOSB-AST, Germany

Martin Wolfram, Ilmenau University of Technology, Germany

Dirk Westermann, Ilmenau University of Technology, Germany

10566 ICT tools for enabling smart grid players flexibility through VPP and DR services

George Messinis, National Technical University of Athens, Greece

Isidoros Kokos, Intracom S.A. Telecom Solutions, Greece

Ilias Lamprinos, Intracom S.A. Telecom Solutions, Greece

Aris Dimeas, National Technical University of Athens, Greece

Nikos Hatziargyriou, National Technical University of Athens, Greece

10377 On the Flexibility of Electricity Consumers – Introducing Notice Time

Lars Herre, KTH Royal Institute of Technology, Sweden

Lennart Söder, KTH Royal Institute of Technology, Sweden

10253 Utilizing Local Energy Storage for Congestion Management and Investment Deferral in Distribution Networks

Konstantinos Spiliotis, KU Leuven, EnergyVille, Belgium

Sander Claeys, UPC, KIC InnoEnergy, Spain

Ariana G. Ramos, KU Leuven, EnergyVille, VITO, Belgium

Johan Driesen, KU Leuven, EnergyVille, Belgium

S03 - Power Generation and renewable energies: Storage I

June 7 - 11:00 – 12:30 – Room B026

Chair: João Catalão, FEUP, Porto, Portugal

10621 Critical evaluation of current EU Directives regarding energy storage and electric vehicles

Robert Reinhardt, Universitat Politècnica de Catalunya, Spain

Beatriz Amante García, Universitat Politècnica de Catalunya, Spain

Lluc Canals Casals, Universitat Politècnica de Catalunya, Spain

Santiago Gassó Domingo, Universitat Politècnica de Catalunya, Spain

10614 Value of Additional Norwegian Hydropower to the European Electricity System

Andreas Maaz, RWTH Aachen University, Institute of Power Systems and Power Economics (IAEW), Germany

Christoph Baumann, RWTH Aachen University, Institute of Power Systems and Power Economics (IAEW), Germany

Albert Moser, RWTH Aachen University, Institute of Power Systems and Power Economics (IAEW), Germany

Ove Wolfgang, SINTEF Energy Research, Norway

Arild L. Henden, SINTEF Energy Research, Norway

Michael Belsnes, SINTEF Energy Research, Norway

Michaela Harasta, E.ON Kraftwerke GmbH, Germany

10549 Residential PV systems with battery backup power attained already grid parity?

Eduardo A. Eusébio, ISEL, Portugal
Cristina I. Camus, ISEL, Portugal

10219 Economics of Energy Storage in a Residential Consumer Context

Dennis Metz, University of Porto, Portugal
João Tomé Saraiva, University of Porto, Portugal

10163 The potential of using Power-to-Liquid plants for power storage purposes

Ralph-Uwe Dietrich, German Aerospace Center (DLR), Germany
Friedemann G. Albrecht, German Aerospace Center (DLR), Germany
Daniel H. König, German Aerospace Center (DLR), Germany

S04 - Competition law, energy rules and institutions

June 7 - 11:00 – 12:30 – Room B029

Chair: Patrícia Pereira da Silva, Faculty of Economics - University of Coimbra, Coimbra, Portugal

10639 Portugal as an electricity exporter country: implications for the national power system

Patricia Fortes, CENSE/NOVA University of Lisbon, Portugal
Sofia Simões, CENSE/NOVA University of Lisbon, Portugal
Júlia Seixas, CENSE/NOVA University of Lisbon, Portugal

10643 Consumer Information, Competition and Price Dispersion in Retail Electricity

Sven Heim, ZEW, Germany
Klaus Gugler, Vienna University of Economics and Business, Austria
Mario Liebensteiner, Vienna University of Economics and Business, Austria

10640 Mind the gap: challenges and policy options for cross-border transmission network investments

Diyun Huang, KULeuven/Energieville, Belgium
Kristof De Vos, KULeuven/Energieville, Belgium
Dirk Van Hertem, KULeuven, Belgium
Luis Olmos, Comillas Pontifical University, Spain
Michel Rivier, Comillas Pontifical University, Spain
Adriaan Van Der Welle, Energy Research Centre of the Netherlands, Netherlands
Jos Sijm, Energy Research Centre of the Netherlands, Netherlands

10495 Toward Retail Competition in the Portuguese Electricity Market

Mohammad Ali Fotouhi Ghazvini, Polytechnic of Porto, Portugal
Sergio Ramos, Polytechnic of Porto, Portugal
João Soares, Polytechnic of Porto, Portugal
Rui Castro, INESC-ID/IST, Portugal
Zita Vale, Polytechnic of Porto, Portugal

10245 Correlation Analysis for District Heating Tariff Benchmarking Model

Ugis Sarma, Latvenergo AS, Latvia
Aris Zigurs, Latvenergo AS, Latvia
Gatis Bazbauers, Riga Technical University, Latvia

S05 - Electricity market design, regulation and monitoring

June 7 - 14:00 – 15:30 – Room B020

Chair: Gregory Swinand, London Economics, London, UK

10545 An analysis of long-term impacts of demand response on investments in thermal power plants and generation adequacy

Florian Zimmermann, Karlsruhe Institute of Technology, Chair of Energy Economics, Germany

Dogan Keles, Karlsruhe Institute of Technology, Chair of Energy Economics, Germany

Joris Dehler, Karlsruhe Institute of Technology, Chair of Energy Economics, Germany

Andreas Bublitz, Karlsruhe Institute of Technology, Chair of Energy Economics, Germany

Wolf Fichtner, Karlsruhe Institute of Technology, Chair of Energy Economics, Germany

10498 Provision of frequency-regulation reserves by distributed energy resources: Best practices and barriers to entry

Olivier Borne, CentraleSupélec, France

Marc Petit, CentraleSupélec, France

Yannick Perez, Université Paris-Sud, France

10494 Optimization of Electricity Markets Participation with QPSO

Ricardo Faia, Polytechnic of Porto, Portugal

Tiago Pinto, Polytechnic of Porto, Portugal

Zita Vale, Polytechnic of Porto, Portugal

10242 Incentivising continuity of supply in Sweden

Karin Alvehag, Swedish Energy Markets Inspectorate, Sweden

Lars Ström, Swedish Energy Markets Inspectorate, Sweden

Linda Werther Öhling, Swedish Energy Markets Inspectorate, Sweden

Tommy Johansson, Swedish Energy Markets Inspectorate, Sweden

Elin Grahn, Swedish Energy Markets Inspectorate, Sweden

Carl Johan Wallnerström, Swedish Energy Markets Inspectorate, Sweden

10221 Long-term Transmission Rights in the Nordic Electricity Markets: TSO Perspectives

Petr Spodniak, Lappeenranta University of Technology, Finland

Mari Makkonen, Lappeenranta University of Technology, Finland

Samuli Honkapuro, Lappeenranta University of Technology, Finland

S06 - Electricity markets & grid planning and operation: Case Studies

June 7 - 14:00 – 15:30 – Room B023

Chair: André Madureira, INESC TEC, Porto, Portugal

11732 Efficient Nonintrusive Distinguisher of Small Nonlinear Electrical Loads

Slobodan Bojanic, Universidad Politécnica de Madrid, Spain

Srdjan Djordjevic, University of Niš, Faculty of Electronics, Serbia

Dejan Stevanovic, Innovation Centre of Advanced Technologies, Serbia

Marko Dimitrijevic, University of Niš, Faculty of Electronics, Serbia

Lidija Korunovic, University of Niš, Faculty of Electronics, Serbia

10629 Is Energy Storage economic in islanded systems? Overview and focus on the case of the island of Jersey

Sam Cross, Aalto University, Finland

Behnam Zakeri, Aalto University, Finland

David Padfield, Jersey Electricity Company, United Kingdom

Sanna Syri, Aalto University, Finland

10547 Assessing the impacts of outages of HVDC-cables between the Nordic area and continental Europe

Christian S. Melaaen, Statnett SF, Norway

Stefan Jaehnert, SINTEF Energy Research, Norway

Magnus Korpås, Norwegian University of Science and Technology, Norway

10477 A Survey of the Portuguese MV Underground Cable Failure

H. Leite, University of Porto - Faculty of Engineering, Portugal

E. Gouveia, University of Porto - Faculty of Engineering, Portugal

C. Morais, EDP Distribuição, SA, Portugal

10476 Integration of Wind Park Bogranci on Macedonian Transmission Power Grid

Igor S. Stojanovski, Macedonian Transmission System Operator, Macedonia

Branka V. Vasikj, Macedonian Transmission System Operator, Macedonia

S07 - Power Generation and renewable energies: Renewable Integration I

June 7 - 14:00 – 15:30 – Room B026

Chair: David Raisz, Budapest University of Technology and Economics, Budapest, Hungary

10470 Application and evaluation of UPSO to ODGP in radial Distribution Networks

Paschalis A. Gkaidatzis, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

Aggelos S. Bouhouras, Department of Electrical Engineering, Technological Educational Institute of Western Macedonia, Greece

Dimitrios I. Doukas, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

Kallisthenis I. Sgouras, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

Dimitris P. Labridis, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

10352 Uncertainty and error analysis when calculation PV's own consumption and its significance to investment decisions

Niklas Kreifels, Fraunhofer ISE, Germany

Sven Killinger, Fraunhofer ISE, Germany

David Fischer, Fraunhofer ISE, Germany

Bernhard Wille-Hausmann, Fraunhofer ISE, Germany

10624 A Method for Optimal Schedule Balancing in Distribution Network using Multi Agent Control Strategy

Andrej F. Gubina, University of Ljubljana, Slovenia

Tomi Medved, University of Ljubljana, Slovenia

Blaz Prislan, University of Ljubljana, Slovenia

Jernej Zupancic, University of Ljubljana, Slovenia

10595 Regulatory Support of Wind Power Producers against Strategic and Collusive Behavior of Conventional Thermal Units

M. Shafie-khah, Univ. of Salerno, Italy
 P. Siano, Univ. of Salerno, Italy
 D.Z. Fitiwi, UBI, Portugal
 S.F. Santos, UBI, Portugal
 J.P.S. Catalão, FEUP, Portugal
 E. Heydarian-Forushani, IUT, Iran

10457 Price-maker Optimal Planning and Operation of Aggregated Distributed Energy Resources

Christian Calvillo, Comillas Pontifical University, Spain
 Alvaro Sánchez, Comillas Pontifical University, Spain
 Jose Villar, Comillas Pontifical University, Spain

S08 - Modelling, simulation and forecasting of energy and carbon markets:

Forecasting of Energy and Carbon Markets

June 7 - 14:00 – 15:30 – Room B029

Chair: Andres Ramos, Universidad Pontificia Comillas, Madrid, Spain

11744 Electric Load Forecasting in a Hydro- and Renewable Based Power System

Egill Benedikt Hreinsson, University of Iceland, Iceland

10586 Forecasting Balancing Market Prices Using Hidden Markov Models

Ilias Dimoukias, KTH Royal Institute of Technology, Sweden
 Mikael Amelin, KTH Royal Institute of Technology, Sweden
 Mohammad Reza Hesamzadeh, KTH Royal Institute of Technology, Sweden

10570 Dynamic Forecast Combinations of Improved Individual Forecasts for the Prediction of Wind Energy

Mathias Käso, University of Technology Cottbus-Senftenberg, Germany
 Felix Müsgens, University of Technology Cottbus-Senftenberg, Germany
 Oliver Grothe, Karlsruhe Institute of Technology, Germany

10569 Applied short-term forecasting for the Slovenian natural gas market

Primoz Potocnik, University of Ljubljana, Faculty of Mechanical Engineering, Slovenia
 Edvard Govekar, University of Ljubljana, Faculty of Mechanical Engineering, Slovenia

10126 Probabilistic Forecasting of Day-ahead Electricity Prices for the Iberian Electricity Market

Rui Moreira, Faculty of Economics, University of Porto, Portugal
 Ricardo Bessa, INESC Technology and Science (INESC TEC), Portugal
 João Gama, Faculty of Economics, University of Porto, Portugal

P1 - Poster Session 1

June 7 - 15:00 – 17:00 – Room Corridor of Building B, ground floor

10555 Evaluation of the flexibility approach in construction of Scenario Outlook & Adequacy Forecast 2015 by ENTSO-E

Mateusz Andrychowicz, Lodz University of Technology, Poland
 Jakub Przybylski, Lodz University of Technology, Poland

10383 Energy Loss Reduction in Distribution Networks via ODGP

Aggelos S. Bouhouras, Department of Electrical Engineering, Technological Educational Institute of Western Macedonia, Kozani, Greece

Paschalis A. Gkaidatzis, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

Kallisthenis I. Sgouras, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

Dimitrios I. Doukas, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

Constantinos Parisses, Department of Electrical Engineering, Technological Educational Institute of Western Macedonia, Kozani, Greece

Dimitris P. Labridis, Power Systems Laboratory, Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

10379 Impact of flexible technologies on end-users price under different levels of renewable generation

Amanda Spisto, EC JRC - Institute for Energy and Transport, Netherlands

10366 Evaluation of the Impact of the Feed-in Generation in the Prices of the Iberian Electricity Market in 2013

Pedro P. Gonçalves, Faculdade de Engenharia da Universidade do Porto, Portugal

João T. Saraiva, Faculdade de Engenharia da Universidade do Porto, Portugal

10248 Concept of evaluating chances and risks of grid autarky

Charlotte Senkpiel, Fraunhofer ISE, Germany

Shivenes Shammugam, Fraunhofer ISE, Germany

Noha Saad Hussein, Fraunhofer ISE, Germany

Wolfgang Hauser, ZIRIUS, Germany

Wolfgang Biener, Fraunhofer ISE, Germany

Niklas Kreifels, Fraunhofer ISE, Germany

Christoph Kost, Fraunhofer ISE, Germany

10607 Balancing of wind farm production via demand response in smart grids

Danka Todorovic, University of Belgrade, Faculty of Electrical Engineering, Serbia

Zeljko Djuricic, University of Belgrade, Faculty of Electrical Engineering, Serbia

Jovana Tusevljak, Elektroprenos - Elektroprijenos BiH, Bosna i Hercegovina

10599 Demand Side Management Platform for HAN Flexibility Estimation with Agent Control

Artjoms Obushevs, Institute of Physical Energetics, Latvia

Irina Oleinikova, Institute of Physical Energetics, Latvia

Anna Mutule, Institute of Physical Energetics, Latvia

10558 Electric Vehicles Charging simulation for an Urban Distribution Network's service sector

Grackova Larisa, Institute of Physical Energetics, Latvia

Oleinikova Irina, Institute of Physical Energetics, Latvia

Klavs Gaidis, Institute of Physical Energetics, Latvia

10435 Multiyear and Multi-Criteria AC Transmission Expansion Planning Model Considering Reliability and Investment Costs

Phillipe G. Vilaça, INESC TEC, Brazil

João P. Silva, INESC TEC, Portugal

João T. Saraiva, INESC TEC, Portugal

10341 Optimized provision of minute reserve capacity products by controlled charging of electric vehicles

Alexander Arnoldt, Advanced System Technology Branch of Fraunhofer IOSB, Germany

Theres Klarner, Advanced System Technology Branch of Fraunhofer IOSB, Germany

Sabine Ritter, Advanced System Technology Branch of Fraunhofer IOSB, Germany

Oliver Warweg, Advanced System Technology Branch of Fraunhofer IOSB, Germany

S09 - Electricity market design, regulation and monitoring: Flexibility on market design

June 7 - 16:00 – 17:30 – Room B020

Chair: Jose Villar, Universidad Pontificia Comillas, Madrid, Spain

10598 User's requirements and privacy concerns as canvas of business models and active demand management within e-balance system

Wojciech Ciemniowski, IPI - National Information Processing Institute, Poland, Poland

Marcel Geers, Alliander N.V., Netherlands

Bozena E. Matusiak, University of LODZ, Dept. of Computer Science, Poland

Krzysztof Piotrowski, IHP - GmbH - Innovations for High Performance Microelectronics, Germany

10511 Investment Incentives for Flexible Demand Options under Different Market Designs

Mirjam Ambrosius, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany

Veronika Grimm, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany

Christian Sölch, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany

Gregor Zöttl, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany

10303 Comparative Analysis of Possible Market Designs for Flexible Distribution System Operation

Katarina Knezovic, Technical University of Denmark, Denmark

Jeremy Lin, PJM Interconnection, United States America

10213 Review of models for power exchanges with non-convex technical constraints for investment decisions

Nicolas Hary, Mines ParisTech / Microeconomix, France

Vincent Rious, Microeconomix / FSR, France

Marcelo Saguan, FSR, France

10240 Achievable revenues for electric vehicles according to current and future energy market conditions

Bjoern Illing, Fraunhofer IOSB-AST, Germany

Oliver Warweg, Fraunhofer IOSB-AST, Germany

S10 - Electricity markets & grid planning and operation: Tariff strategies and transmission impacts of wholesale electricity markets

June 7 - 16:00 – 17:30 – Room B023

Chair: Zita Vale, ISEP, Porto, Portugal

10561 The impact of microeconomic decisions in electricity market modeling on load flows in transmission grids

Manuel Ruppert, Karlsruhe Institute of Technology, Germany

Viktor Slednev, Karlsruhe Institute of Technology, Germany

Valentin Bertsch, Economic and Social Research Institute, Ireland

Wolf Fichtner, Karlsruhe Institute of Technology, Germany

10344 Network Impacts of Distribution Power Tariff Schemes with Active Customers

Antti Supponen, Tampere University of Technology, Finland

Kimmo Lummi, Tampere University of Technology, Finland

Antti Rautiainen, Tampere University of Technology, Finland

Sami Repo, Tampere University of Technology, Finland

Pertti Järventausta, Tampere University of Technology, Finland

10309 Improvement of Real-time Market Efficiency via Dynamic Line Ratings

Kwok W. Cheung, GE, United States America

Jun Wu, GE, United States America

10287 Improved Integration of European Renewables Using Dynamic Line Rating in Switzerland

Janis Vinklers, ETH Zurich, Laboratory for Energy Conversion, Switzerland

Ndaona Chokani, ETH Zurich, Laboratory for Energy Conversion, Switzerland

Reza S. Abhari, ETH Zurich, Laboratory for Energy Conversion, Switzerland

11758 A Review on the Theory of Electric Power Reliability Worth and Customer Interruption Costs Assessment Techniques

Sinan Küfeoğlu, Aalto University, Finland

Matti Lehtonen, Aalto University, Finland

S11 - Modelling, simulation and forecasting of energy and carbon markets:

Modelling of Energy Markets I

June 7 - 16:00 – 17:30 – Room B026

Chair: Dominik Möst, TU Dresden, Dresden, Germany

11241 Optimal Long Term Hydro Scheduling Linked to Average Electricity Market Prices

Egill Benedikt Hreinsson, University of Iceland, Iceland

10677 Agent-based Price Simulation of the Day-Ahead-Spot-Market and Markets for Control Reserve Power in Germany

Levin Skiba, RWTH Aachen University, Germany

Andreas Maaz, RWTH Aachen University, Germany

Albert Moser, RWTH Aachen University, Germany

10618 Long-term Scenarios Development for the Electricity Tariffs in Brazil

Gheisa R. Esteves, Pontifical Catholic University of Rio de Janeiro, Brazil
Paula M. Maçaira, Pontifical Catholic University of Rio de Janeiro, Brazil
Danilo L. Carmo, Pontifical Catholic University of Rio de Janeiro, Brazil
Reinaldo C. Souza, Pontifical Catholic University of Rio de Janeiro, Brazil
Fernando L. Cyrino Oliveira, Pontifical Catholic University of Rio de Janeiro, Brazil
Rodrigo F. Calili, Pontifical Catholic University of Rio de Janeiro, Brazil

10589 The Impact of Renewable Energy Resources on the Electricity Prices of the United Kingdom

Sara Lupo, the University of Edinburgh, United Kingdom
Aristides E. Kiprakis, the University of Edinburgh, United Kingdom

10666 Spikes and Antispikes in Electricity Continuous Time Price Models

Carlo Lucheroni, University of Camerino, Italy
Carlo Mari, University of Chieti - Pescara, Italy

S12 - Implementation of the energy and climate European policy I

June 7 - 16:00 – 17:30 – Room B029

Chair: Jorge Sousa, ISEL, Lisbon, Portugal

10609 Determinants of organizational change in Electricity Distribution System Operators – A review and survey

Guillermo Ivan Pereira, Energy for Sustainability Initiative, MIT Portugal Program, Faculty of Sciences and Technology, University of Coimbra, Portugal | INESC Coimbra, Institute for Systems Engineering and Computers at Coimbra, Portugal, Portugal
Patrícia Pereira da Silva, Energy for Sustainability Initiative, MIT Portugal Program, Faculty of Sciences and Technology, University of Coimbra, Portugal | Faculty of Economics, University of Coimbra, Portugal | INESC Coimbra, Institute for Systems Engineering and Computers at Co, Portugal

10512 The Impact of Long-Term Demand Response on Investment Planning of Renewable Power Systems

Arne van Stiphout, KU Leuven & EnergyVille, Belgium
Geert Deconinck, KU Leuven & EnergyVille, Belgium

10501 An analysis of factors enhancing adoption of smart metering platforms: an agent-based modeling approach

Anna Kowalska-Pyzalska, Wrocław University of Technology, Poland

10368 Optimal trade-offs between Energy Efficiency improvements and additional Renewable Energy supply: A review of international experiences.

M. Baldini, Technical University of Denmark (DTU), Denmark
H.K. Jacobsen, Technical University of Denmark (DTU), Denmark

10269 An Island in the Middle of Europe? The Costs of Swiss Electricity Autarky

Moritz Schillinger, University of Basel, Switzerland
Ingmar Schlecht, University of Basel, Switzerland
Hannes Weigt, University of Basel, Switzerland

Wednesday June 8

Plenary Session - Iberian Electricity Market Prices

June 8 - 9:00 – 10:30 – Room Auditorium A

- 9:00 – 9:25 Dr. Ricardo Nunes
Iberian Derivatives Power Market
- 9:25 – 9:50 Dr. Rafael Gómez-Elvira González
Iberian Spot Electricity Prices in the Context of European Integration
- 9:50 – 10:00 EEM 2016 Electricity Price Forecast Competition - Sanjeev Aggarwal, University of Mulana, India (third place forecaster)
- 10:00 – 10:10 EEM 2016 Electricity Price Forecast Competition – Carlos López Llopis, Alcanzia, Spain (second place forecaster)
- 10:10 – 10:20 EEM 2016 Electricity Price Forecast Competition – Csaba Megyeri, Uniper Global Commodities, Germany (first place forecaster)
- 10:20 – 10:30 EEM 2016 Electricity Price Forecast Competition – Prize Award Ceremony – to be awarded by Mr. Jorge Borges Araujo (CEO of Smartwatt)

S13 - Electricity market design, regulation and monitoring: Regulation and Tariff

June 8 - 11:00 – 12:30 – Room B020

Chair: Ndaona Chokani, ETH Zürich, Zürich, Switzerland

10647 Regulatory Issues in the Deployment of Distributed Storage Devices in Distribution Networks

Ricardo Ferreira, INESC TEC & FEUP, Portugal

Manuel Matos, INESC TEC & FEUP, Portugal

J.A. Peças Lopes, INESC TEC & FEUP, Portugal

10532 Methodology to determine the optimal Electricity Distribution tariff using benchmarking techniques

Carlos Tascheret, Instituto de Energía Eléctrica UNSJ-CONICET, Argentina

Giuseppe Rattá, Instituto de Energía Eléctrica UNSJ-CONICET, Argentina

Andreoni Alberto, Instituto de Energía Eléctrica UNSJ-CONICET, Argentina

10272 Cost-causation based approach in forming power-based distribution network tariff for small customers

Kimmo Lummi, Tampere University of Technology, Finland

Antti Rautiainen, Tampere University of Technology, Finland

Pirjo Heine, Helen Electricity Network Ltd., Finland

Pertti Järventausta, Tampere University of Technology, Finland

Jouni Lehtinen, Helen Electricity Network Ltd., Finland

Markku Hyvärinen, Helen Electricity Network Ltd., Finland

10176 An Alternative Benchmarking Approach for Electricity Utility Regulation Using Maximum Entropy

E. Silva, Faculty of Economics, University of Porto, Portugal
P. Macedo, Department of Mathematics, University of Aveiro, Portugal
I. Soares, Faculty of Economics, University of Porto, Portugal

10152 Power-based distribution tariff structure: DSO's perspective

Jussi Tuunanen, Lappeenranta University of Technology, Finland
Samuli Honkapuro, Lappeenranta University of Technology, Finland
Jarmo Partanen, Lappeenranta University of Technology, Finland

S14 - Electricity markets & grid planning and operation: Market aspects

June 8 - 11:00 – 12:30 – Room B023

Chair: Michal Wierzbowski, Lodz University of Technology, Lodz, Poland

11780 Enhancing Stochastic Unit Commitment to Include Nodal Wind Power Uncertainty

Rui Pinto, FEUP, INESC TEC, Portugal
Leonel Carvalho, INESC TEC, Portugal
Jean Sumaili, INESC TEC, Portugal
Vladimiro Miranda, FEUP, INESC TEC, Portugal

10506 Using Optimized Flow Based Market Capacity Indices in TSO Investment Evaluation

Konstantin Vandyshv, Delft University of Technology, Netherlands
Jasper van Casteren, TenneT TSO bv, Netherlands
Susana de Almeida de Graaff, TenneT TSO bv, Netherlands
Danny Klaar, TenneT TSO bv, Netherlands

10473 Centralized and Decentralized Electricity Markets: Assessment of Operational and Economic Aspects

Annetta Matenli, Swissgrid Ltd, Switzerland
Farzaneh Abbaspourtorbati, Ecole Polytech. Fed. de Lausanne EPFL, Switzerland
Florian Mende, Swissgrid Ltd, Switzerland
Luigi Luongo, Swissgrid Ltd, Switzerland
Rachid Cherkaoui, Ecole Polytech. Fed. de Lausanne EPFL, Switzerland

10319 Macroeconomic Benefit of Integrated Markets for Reserve Balancing in Europe

Tim Drees, Institute of Power Systems and Power Economics (IAEW), RWTH Aachen University, Germany
Albert Moser, Institute of Power Systems and Power Economics (IAEW), RWTH Aachen University, Germany

10279 An economic analysis of Commercial Aggregator services

Cristina Corchero, Catalonia Institute for Energy Research, Spain
Lucia Igualada, Catalonia Institute for Energy Research, Spain
Ioannis T. Moschos, Catalonia Institute for Energy Research, Greece
Grigorios Kotsis, Catalonia Institute for Energy Research, Greece
Miguel Cruz-Zambrano, Catalonia Institute for Energy Research, Spain

S15 - Power Generation and renewable energies: Renewable Integration II

June 8 - 11:00 – 12:30 – Room B026

Chair: Carlo Lucheroni, University of Camerino, Camerino, Italy

10550 Least-cost 100% Renewable Electricity Scenarios

Maria João Santos, Universidade do Minho, Portugal

Paula Ferreira, Universidade do Minho, Portugal

Madalena Araújo, Universidade do Minho, Portugal

10535 Myopic Optimization Models for Simulation of Investment Decisions in the Electric Power Sector

Kris Poncelet, KU Leuven/EnergyVille, Belgium

Erik Delarue, KU Leuven/EnergyVille, Belgium

Daan Six, VITO/EnergyVille, Belgium

William D'haeseleer, KU Leuven/EnergyVille, Belgium

10518 The Economic Potential of Offshore Wind Energy in the Portuguese Coast

Ana Faria Lopes, NOVA School of Business and Economics, Portugal

10437 Insight into electric utility business models for high-share renewables and storage integration

Lucio De Fusco, Université catholique de Louvain, Belgium

Guido Lorenzi, Instituto Superior Técnico, Portugal

Hervé Jeanmart, Université catholique de Louvain, Belgium

S16 - Modelling, simulation and forecasting of energy and carbon markets: Markets and Policy I

June 8 - 11:00 – 12:30 – Room B029

Chair: Blazek Olek, Lodz University of Technology, Lodz, Poland

10581 How significant are fiscal interactions in climate policy design? A CGE analysis

Sara Proença, CERNAS, ESAC/Polytechnic of Coimbra, Portugal

Patrícia Fortes, CENSE, FCT/Nova University of Lisbon, Portugal

10531 Fossil-free Public Transport: Prescriptive Policy Analysis for The Swedish Bus Fleets

Maria Xylia, KTH Royal Institute of Technology, Sweden

Osama Ibrahim, Stockholm University, Sweden

Semida Silveira, KTH Royal Institute of Technology, Sweden

10431 Intersection of national renewable energy policies in countries with a common power market: The case of Nordic countries

Behnam Zakeri, Aalto University, Finland

Sanna Syri, Aalto University, Finland

10311 Risk aversion and generation adequacy in liberalized electricity markets: benefits of capacity markets

Ahmed O. Abani, MINES ParisTech, PSL - Research University, CERNA - Centre for industrial economics / Microeconomix, France

Marcelo Saguan, Robert Schuman Centre Florence School of Regulation Florence, Italy

Vincent Rious, Microeconomix, Paris, France

Hary Nicolas, MINES ParisTech, PSL - Research University, CERNA - Centre for industrial economics / Microeconomix, France

10270 ABM Simulation of a new Brazilian Bid Based Short Term Electricity Market

Felipe Alves Calabria, FEUP, Brazil

João Tomé Saraiva, INESC TEC and DEEC/FEUP, Portugal

Ana Paula Rocha, LIACC/DEI/FEUP, Portugal

IG Session - ITEM Game

June 8 - 11:00 – 12:30 – Room B204

Jorge Sousa, ISEL, Lisbon, Portugal

João Lagarto, ISEL, Lisbon, Portugal

S17 - Electricity market design, regulation and monitoring: Proposal of balancing markets

June 8 - 14:00 – 15:30 – Room B020

Chair: Joel Soares, INESC TEC, Porto, Portugal

10559 Classification of Balancing Markets Based on Different Activation Philosophies: Proactive and Reactive Designs

Martin Håberg, Statnett, NTNU, Norway

Gerard L. Doorman, Statnett, NTNU, Norway

10510 Evaluation of different Balancing Market Designs with the EDisOn+Balancing model

Bettina Burgholzer, Technische Universität Wien, Austria

10480 Participation of interconnected capacity in balancing markets: benefits and practical steps

Olga Gore, Lappeenranta University of Technology, Finland

Satu Viljainen, Fingrid, Finland

Petr Spodniak, Lappeenranta University of Technology, Finland

10385 Harmonisation issues for cross-border balancing markets: regulatory and economic analysis

Tara Esterl, AIT Austrian Institute of Technology, Austria

Stefanie Kaser, AIT Austrian Institute of Technology, Austria

Alessandro Zani, RSE S.p.A., Italy

10264 A scenario analysis for EU balancing market integration

Alessandro Zani, RSE S.p.A., Italy

Roberto Calisti, RSE S.p.A., Italy

Francesco Careri, RSE S.p.A., Italy

Maria Vittoria Cazzol, RSE S.p.A., Italy

S18 - Electricity markets & grid planning and operation: Ancillary Services and Power System Operation on Energy Systems

June 8 - 14:00 – 15:30 – Room B023

Chair: Andrej Gubina, University of Ljubljana, Ljubljana, Slovenia

10601 Joint day-ahead clearing of energy, active and reactive power reserves for systems with significant RES-related uncertainty

Mana Farrokhseresht, Eindhoven University of Technology (TU/e), Netherlands

Nikolaos G. Paterakis, Eindhoven University of Technology (TU/e), Netherlands

Madeleine Gibescu, Eindhoven University of Technology (TU/e), Netherlands

10582 Dynamic Sizing of automatic and manual Frequency Restoration Reserve Capacity for different Product Lengths

Dominik Jost, Fraunhofer IWES, Germany

Axel Braun, Fraunhofer IWES, Germany

Rafael Fritz, Fraunhofer IWES, Germany

Scott Otterson, Fraunhofer IWES, Germany

10450 Value of energy storage in the Nordic electricity market – Benefits from price arbitrage and ancillary services

Behnam Zakeri, Aalto University, Finland

Sanna Syri, Aalto University, Finland

10289 The effects of reactive power provision from the distribution grid on redispatch cost

Fabian Hinz, Chair of Energy Economics, TU Dresden, Germany

Dominik Möst, Chair of Energy Economics, TU Dresden, Germany

10288 Cooperation of TSO and DSO to provide ancillary services

Michael Zipf, TU Dresden, Germany

Dominik Möst, TU Dresden, Germany

S19 - Power Generation and renewable energies: Power Generation I

June 8 - 14:00 – 15:30 – Room B026

Chair: Birger Mo, SINTEF Energy Research, Trondheim, Norway

10658 Assessment of Operation Reserves in a Hydrothermal Electric System with High Wind Generation

Andres Ramos, Universidad Pontificia Comillas, Spain

German Morales-España, Delft University of Technology, Netherlands

Michel Rivier, Universidad Pontificia Comillas, Spain

Javier Garcia-Gonzalez, Universidad Pontificia Comillas, Spain

Jesus M. Latorre, Universidad Pontificia Comillas, Spain

10631 Net load forecasting in presence of renewable power curtailment

P.M. Fonte, ISEL, Portugal

Cláudio Monteiro, FEUP, Portugal

Fernando Maciel Barbosa, FEUP, Portugal

10517 Long-term cycling costs in short-term unit commitment models

Kenneth Van den Bergh, KU Leuven, Belgium
Thomas Legon, KU Leuven, Belgium
Erik Delarue, KU Leuven, Belgium
William D'haeseleer, KU Leuven, Belgium

10492 Integration of Pumping in Virtual Power Players Management Considering Demand Response

Diogo Boldt, Polytechnic of Porto, Portugal
Pedro Faria, Polytechnic of Porto, Portugal
Zita Vale, Polytechnic of Porto, Portugal

10241 Load Duration Curve in the Long-term Energy Mix Optimization

Wojciech Lyzwa, Lodz University of Technology, Poland
Michal Wierzbowski, Lodz University of Technology, Poland

S20 - Modelling, simulation and forecasting of energy and carbon markets:

Modelling of energy markets II

June 8 - 14:00 – 15:30 – Room B029

Chair: Bjoern Illing, Fraunhofer IOSB-AST, Germany

10617 An MPEC approach for Analysing the Impact of Energy Storage in Imperfect Electricity Markets

Yujian Ye, Imperial College London, United Kingdom
Dimitrios Papadaskalopoulos, Imperial College London, United Kingdom
Goran Strbac, Imperial College London, United Kingdom

10526 Analyzing large-scale renewable energy integration and energy storage in Morocco using a flow-based market model

Magnus Korpås, Norwegian University of Science and Technology, Norway
Harald G. Svendsen, SINTEF Energy Research, Norway
Eirik A Rye, Norwegian University of Science and Technology, Norway
Arne Ø Lie, Norwegian University of Science and Technology, Norway
Hossein Farahmand, Norwegian University of Science and Technology, Norway

10451 Multi-market optimal scheduling of a generation portfolio with a price-maker pumped-storage hydro unit

Filipe Fernandes, Instituto Superior Técnico, Portugal
João Lagarto, Instituto Superior de Engenharia de Lisboa, INESC-ID, Portugal
Jorge A. M. Sousa, Instituto Superior de Engenharia de Lisboa, INESC-ID, Portugal
João Santana, Instituto Superior Técnico, INESC-ID, Portugal

10180 Value of Perfect Information of Spot Prices in the Joint Energy and Reserve Hourly Scheduling of Pumped Storage Plants

Manuel Chazarra, Technical University of Madrid, Spain
Juan I. Pérez-Díaz, Technical University of Madrid, Spain
Javier García-González, Institute for Research in Technology, Comillas Pontifical University of Madrid, Spain

10121 Incorporating Long-term Uncertainties in Generation Expansion Planning

Niklas van Bracht, Institute of Power Systems and Power Economics, RWTH Aachen University, Germany

Fabian Grote, Institute of Power Systems and Power Economics, RWTH Aachen University, Germany

Alexander Fehler, Institute of Power Systems and Power Economics, RWTH Aachen University, Germany

Albert Moser, Institute of Power Systems and Power Economics, RWTH Aachen University, Germany

Special Session - Proposal of a New European Co-Optimised Energy and Ancillary Service Market Design

June 8 - 14:00 – 15:30 – Room B030

10585 Proposal of a New European Co-optimised Energy and Ancillary Service Market Design - Part I - Concept

Dr. Dániel Divényi, Budapest University of Technology and Economics, Hungary

Beáta Polgári, Budapest University of Technology and Economics, Hungary

Dr. Dávid Raisz, Budapest University of Technology and Economics, Hungary

Ádám Sleisz, Budapest University of Technology and Economics, Hungary

Péter M. Sörös, Budapest University of Technology and Economics, Hungary

10572 Proposal of a New European Co-optimised Energy and Ancillary Service Market Design - Part II - Mathematical Model, Case Study and Prototype

Beáta Polgári, Budapest University of Technology and Economics, Hungary

Ádám Sleisz, Budapest University of Technology and Economics, Hungary

Péter M. Sörös, Budapest University of Technology and Economics, Hungary

Dr. Dániel Divényi, Budapest University of Technology and Economics, Hungary

Dr. Dávid Raisz, Budapest University of Technology and Economics, Hungary

P2 - Poster Session 2

June 8 - 15:00 – 17:00 – Room Corridor of Building B, ground floor

10626 Asymmetries in the German Diesel Retail Market

Sebastian Kreuz, Brandenburg University of Technology, Germany

Felix Müsgens, Brandenburg University of Technology, Germany

10499 A day ahead total transfer capacity uncertainty analysis for interconnected power systems with a large-scale integration of renewables

Danka Todorovic, University of Belgrade, Faculty of Electrical Engineering, Serbia

Zeljko Djuricic, University of Belgrade, Faculty of Electrical Engineering, Serbia

Momcilo Lukic, RSCI SCC - Security Coordination Centre, Serbia

10205 Combined SDDP and simulator model for hydropower scheduling with sales of capacity

Martin N. Hjelmeland, NTNU, Norway

Arild Helseth, SINTEF Energy Research, Norway

Magnus Korpås, NTNU, Norway

- 10541 Capacity Market in Russia: getting rid of oversupply and decreasing CRMs burden**
Evgenia Vanadzina, Lappeenranta University of Technology, Finland
Olga Gore, Lappeenranta University of Technology, Finland
- 10524 Non-convexities in European day-ahead electricity markets: Belgium as a case study**
Mehdi Madani, Louvain School of Management, Université Catholique de Louvain, Belgium
Mathieu Van Vyve, CORE, Université Catholique de Louvain, Belgium
Alain Marien, Commissie voor de Regulering van de Elektriciteit en het Gas, Belgium
Marijn Maenhoudt, Commissie voor de Regulering van de Elektriciteit en het Gas, Belgium
Patrick Luickx, Commissie voor de Regulering van de Elektriciteit en het Gas, Belgium
Andreas Tirez, Commissie voor de Regulering van de Elektriciteit en het Gas, Belgium
- 10350 Market splitting and the Swedish electricity market**
Nuno Carvalho Figueiredo, University of Coimbra, Portugal
Patrícia Pereira da Silva, University of Coimbra, Portugal
Pedro A. Cerqueira, University of Coimbra, Portugal
- 10301 DMA – technical, organizational and economic challenges to incentivize competition in decentralized systems**
Niklas Hartmann, Fraunhofer Institute for Solar Energy Systems ISE, Germany
Jessica Thomsen, Fraunhofer Institute for Solar Energy Systems ISE, Germany
Andrej Schulz, Fraunhofer Institute for Solar Energy Systems ISE, Germany
Daniel Zech, Fichtner IT Consulting AG, Germany
Thomas Schlegl, Fraunhofer Institute for Solar Energy Systems ISE, Germany
- 10243 Incentive scheme for efficient use of electricity network in Sweden**
Linda Werther Öhling, Swedish Energy Markets Inspectorate, Sweden
Karin Alvehag, Swedish Energy Markets Inspectorate, Sweden
Lars Ström, Swedish Energy Markets Inspectorate, Sweden
Tommy Johansson, Swedish Energy Markets Inspectorate, Sweden
Gustav Wigeborg, Swedish Energy Markets Inspectorate, Sweden
Carl Johan Wallnerström, Swedish Energy Markets Inspectorate, Sweden
- 10137 Application of the MATLAB® Linprog Function to Plan the Short Term Operation of Hydro Stations Considered as Price Makers**
Manuel S. Castro, Faculdade de Engenharia da Universidade do Porto, Portugal
João T. Saraiva, Faculdade de Engenharia da Universidade do Porto, Portugal
José C. Sousa, EDP Gestão da Produção de Energia SA, Portugal

S21 - Electricity market design, regulation and monitoring: Local Markets and Cross Boarder Balancing

June 8 - 16:00 – 17:30 – Room B020

Chair: João Lagarto, ISEL, Lisbon, Portugal

- 10653 Coherence of Locational Marginal Prices in an Electricity Market Network**
Ricardo Moreno, Escuela Colombiana de Ingeniería Julio Garavito, Columbia
Paola A. Mora, Escuela Colombiana de Ingeniería Julio Garavito, Columbia
- 10537 The Implications of Two German Price Zones in a European-Wide Context**
Glenn Plancke, KU Leuven, Belgium
Cedric De Jonghe, KU Leuven, Belgium
Ronnie Belmans, KU Leuven, Belgium

10529 A novel capacity remuneration mechanism for energy mix optimization

Izabela Musial, Lodz University of Technology, Poland, Poland
Michal Wierzbowski, Lodz University of Technology, Poland, Poland

10484 Cross-border effects of capacity remuneration schemes in interconnected markets: who is free-riding?

Xavier LAMBIN, Toulouse School of Economics - ENGIE, France
Thomas-Olivier Léautier, Toulouse School of Economics, France

10528 Polish Energy Policy 2050 and its impact on energy mix and emission

Izabela Musial, Lodz University of Technology, Poland, Poland
Michal Wierzbowski, Lodz University of Technology, Poland, Poland
Wojciech Lyzwa, Lodz University of Technology, Poland, Poland

S22 - Electricity markets & grid planning and operation: Prosumer

June 8 - 16:00 – 17:30 – Room B023

Chair: Petr Spodniak, Lappeenranta University of Technology, Lappeenranta, Finland

10604 Operation scheduling of prosumer with renewable energy sources and storage devices

Suzana Souza, INESC TEC/ELETROBRAS, Brazil
Mariana Gil, INESC TEC, Portugal
Jean Sumaili, INESC TEC, Portugal
André G. Madureira, INESC TEC, Portugal
João Peças Lopes, INESC TEC/FEUP, Portugal

10557 Impact of PV for Self-consumption in the Day-ahead Spot Prices

Filipe J. Soares, INESC TEC, Portugal
José P. Iria, INESC TEC, Portugal
José C. Sousa, EDP- Gestão da Produção de Energia, Portugal
Virgilio Mendes, EDP- Gestão da Produção de Energia, Portugal
Ana C. Nunes, EDP- Gestão da Produção de Energia, Portugal

10460 Quantitative Benefit Assessment of Electricity Settlement Using Smart Meters

Qiuyang Q. Ma, University of Bath, United Kingdom
Minghao M. Xu, University of Bath, United Kingdom
Ran R. Li, University of Bath, United Kingdom
Furong F. Li, University of Bath, United Kingdom

10286 Residential Energy Management System with Photovoltaic Generation using Simulated Annealing

Diego B. Vilar, Federal University of Para, Brazil
Carolina M. Affonso, Federal University of Para, Brazil

10525 Economic Evaluation of Combined Generation and Storage Solutions in Low Voltage Portuguese Consumers

R. Soares, INESC TEC, Portugal
J. T. Saraiva, INESC TEC and FEUP/DEEC, Portugal

**S23 - Modelling, simulation and forecasting of energy and carbon markets:
Markets and Policy II**

June 8 - 16:00 – 17:30 – Room B026

Chair: Vladimiro Miranda, FEUP and INESC TEC, Porto, Portugal

10514 Fossil or hydro based capacity development? - Power sector modelling in the South-East European Region

László Szabó, BCE REKK, Hungary

András Mezősi, BCE REKK, Hungary

Zsuzsanna Pató, BCE REKK, Hungary

10462 Hydrothermal market model based on price decomposition and supply/demand curves

Birger Mo, SINTEF Energy Research, Norway

Arild Helseth, SINTEF Energy Research, Norway

Arild Henden, SINTEF Energy Research, Norway

10302 Impact of start-up costs on flexible power plant operation

Mathias Hermans, KU Leuven Energy Institute & EnergyVille, Belgium

Erik Delarue, KU Leuven Energy Institute & EnergyVille, Belgium

10275 Putting the heat on electricity markets - Effects of a heat wave in Eastern Europe on Germany

Jonas D. Savelsberg, University of Basel, Switzerland

Schillinger Moritz, University of Basel, Switzerland

Trung Vu, University of Stuttgart, Germany

10224 The Scottish Electricity Dispatch Model

Shona Pennock, University of Strathclyde, United Kingdom

Simon Gill, University of Strathclyde, United Kingdom

Keith Bell, University of Strathclyde, United Kingdom

S24 - Implementation of the energy and climate European policy II

June 8 - 16:00 – 17:30 – Room B029

Chair: Klaus Skytte, DTU, Lyngby, Danmark

10580 Local Market Framework for Procuring Flexibility from the End-user Consumers

Shahab Shariat Torbaghan, TU Eindhoven, Netherlands

Niels Blaauwbroek, TU Eindhoven, Netherlands

Nguyen H. Phuong, TU Eindhoven, Netherlands

Madeleine Gibescu, TU Eindhoven, Netherlands

10591 Energy Sector: A Cross-Country Resource and Impact Decoupling Analysis

Fátima Lima, Department of Production and Systems, University of Minho, Portugal

Manuel L. Nunes, ALGORITMI Research Center, University of Minho, Portugal

Jorge Cunha, ALGORITMI Research Center, University of Minho, Portugal

10488 Large scale introduction of Zero Energy Buildings in the Nordic Power System

K.B. Lindberg, Norwegian University of Science and Technology, Norway

G. Doorman, Norwegian University of Science and Technology, Norway

T. Dyrendahl, Norwegian University of Science and Technology, Norway

E. Øyslebø, Norwegian Water Resources and Energy Directorate, Norway

M. Korpås, Norwegian University of Science and Technology, Norway

H. Endresen, Norwegian Water Resources and Energy Directorate, Norway

C. H. Skotland, Norwegian Water Resources and Energy Directorate, Norway

10445 Innovative Accounting Approach for environmental, energy and economic variables for Portuguese and Spanish sectors

Margarita Robaina, University of Aveiro, Portugal

Mara Madaleno, University of Aveiro, Portugal

Victor Moutinho, University of Aveiro, Portugal

10207 Environmental Policy under TK Diffusion between different Environmental Countries

Mónica Meireles, ISCTE-IUL - Instituto Universitário de Lisboa, Portugal

Isabel Soares, FEP - Universidade do Porto, Portugal

Óscar Afonso, FEP - Universidade do Porto, Portugal

Thursday, June 9

Plenary Session

June 9 - 9:00 – 10:30 – Room Auditorium A

Dr. Albino Marques

Operation of a Power System with a Large Share of Renewable Sources - The Point of View of REN, the Portuguese Transmission System Operator

Prof. Dra. Irina Oleinikova

Electricity Market Design Ensuring Operational Flexibility

S25 - Electricity market design, regulation and monitoring: Renewables in the Electricity Markets

June 9 - 11:00 – 12:30 – Room B020

Chair: Iason Avramiotis, Swissgrid Ltd., Zürich, Switzerland

10602 Wind power in markets for frequency support services

Hannele Holttinen, VTT, Finland

Jose Luis Dominguez, IREC, Spain

Anzelika Ivanova, IREC, Spain

10592 Wind power producers in shorter gate closure markets and balancing markets

Hannele Holttinen, VTT, Finland

Jari J Miettinen, VTT, Finland

Luis Rodrigues, LNEG, Portugal

Antonio Couto, LNEG, Portugal

Ana Estanqueiro, LNEG, Portugal

Hugo Algarvio, LNEG, Portugal

10271 100 % Renewable Energy System – Challenges and Opportunities for Electricity Market Design

Kaisa Salovaara, Lappeenranta University of Technology, Finland

Samuli Honkapuro, Lappeenranta University of Technology, Finland

Mari Makkonen, Lappeenranta University of Technology, Finland

Olga Gore, Lappeenranta University of Technology, Finland

10149 A general investigation about how to divide DR benefits between DSO and markets

Jussi Tuunanen, Lappeenranta University of Technology, Finland

Petri Valtonen, Lappeenranta University of Technology, Finland

Samuli Honkapuro, Lappeenranta University of Technology, Finland

Jarmo Partanen, Lappeenranta University of Technology, Finland

10551 Green certificates and investments in small hydro power plants

Stein-Erik Fleten, Norwegian University of Science and Technology, Trondheim, Norway

Kristin Linnerud, Center for International Climate and Environmental Research (CICERO), Oslo, Norway

Peter Molnar, Norwegian University of Science and Technology, Trondheim, Norway

Maria T. Nygard, Norwegian University of Science and Technology, Trondheim, Norway

S26 - Electricity markets & grid planning and operation: Studies on Demand Response

June 9 - 11:00 – 12:30 – Room B023

Chair: Christoph Mayer, OFFIS e. V. - Institute for Information Technology, Germany

10638 The International Electricity Market Infrastructure–Insight from the Nordic Electricity Market

Zheng Ma, University of Southern Denmark, Denmark

Zerina Prljaca, University of Southern Denmark, Denmark

Bo Nørregaard Jørgensen, University of Southern Denmark, Denmark

10630 Demand Response Program Applied in Systems with Limited Energy Supply

Bibiana P. Ferraz, UFRGS - Universidade Federal do Rio Grande do Sul, Brazil

Flávio A. B. Lemos, UFRGS - Universidade Federal do Rio Grande do Sul, Brazil

Sergio L. Haffner, UFRGS - Universidade Federal do Rio Grande do Sul, Brazil

Tatiano Busatto, UFRGS - Universidade Federal do Rio Grande do Sul, Brazil

10508 Demand response in Australian and European electricity markets

Salla Annala, Lappeenranta University of Technology, Finland

Samuli Honkapuro, Lappeenranta University of Technology, Finland

10502 Opportunities of demand flexibility bidding in result of critical peak pricing implementation for low voltage customers in Polish power system

Andruszkiewicz Jerzy, Poznań University of Technology, Poland

Lorenc Jozef, Poznań University of Technology, Poland

Michalski Artur, Enea S.A., Poland

Borowiak Waldemar, Enea Operator Sp. z o.o., Poland

10304 Impact of new interconnection lines on the EU electricity market

Valeria Di Cosmo, ESRI and TCD, Ireland

Valentin Bertsch, ESRI and TCD, Ireland

Paul Deane, ERI Cork, Ireland

S27 - Power Generation and renewable energies: Power Generation II

June 9 - 11:00 – 12:30 – Room B026

Chair: Lilian de Menezes, Cass Business School, London, UK

10590 Optimal Integration of RES-based DGs with Reactive Power Support Capabilities in Distribution Network Systems

S.F. Santos, UBI, Portugal

D.Z. Fitiwi, UBI, Portugal

A.W. Bizuayehu, UBI, Portugal

J.P.S. Catalão, FEUP, Portugal

M. Shafie-khah, UBI, Italy

10822 Regulatory Barriers for Flexible Coupling of the Nordic Power and District Heating Markets

Klaus Skytte, DTU Management Engineering, Denmark

Ole Jess Olsen, DTU Management Engineering, Denmark

10641 “New” or “old” technologies to decarbonize UK’s electricity system?

Marianne Zeyringer, UCL Energy Institute, United Kingdom
Birgit Fais, UCL Energy Institute, United Kingdom
James Price, UCL Energy Institute, United Kingdom

10578 Torrefied Biomass Pellets: An Alternative Fuel to Coal Power Plants

L.J.R. Nunes, UA, Portugal
J.C.O. Matias, UA, Portugal
J.P.S. Catalão, FEUP, Portugal

10342 Economic Evaluation of Retort Gas Utilization for Electricity Generation

Svetlana Pulkkinen, Tallinn University of Technology, Estonia
Juhan Valtin, Tallinn University of Technology, Estonia

S28 - Modelling, simulation and forecasting of energy and carbon markets:

Modelling of energy markets III

June 9 - 11:00 – 12:30 – Room B029

Chair: Slobodan Bojanic, Universidad Politécnica de Madrid, Madrid, Spain

10562 Reconstruction of Wind Generation Historical Series Aiming at the Analysis of Energy Complementarity: Methodology and Applications

Lucas T. Witzler, University of São Paulo, Brazil
Dorel S. Ramos, University of São Paulo, Brazil
Luiz A. S. Camargo, University of São Paulo, Brazil
Ewerton W. Guarnier, University of São Paulo, Brazil

10540 Purely Data-driven Approaches to Trading of Renewable Energy Generation

Nicolò Mazzi, University of Padova, Italy
Pierre Pinson, Technical University of Denmark, Denmark

10513 Modeling of cyclic events in electricity markets using circular statistical methods

Daniel Freitas, ISEL, Portugal
Ana Martins, ISEL, Portugal
João Lagarto, ISEL, Portugal

10359 Approaching Generation Variable Costs From Publicly Available Data

Nuno Marinho, EDF R&D, France
Yannick Phulpin, EDF R&D, France
Damien Folliot, EDF R&D, France
Martin Hennebel, CentraleSupélec, France

10246 Impacts of Battery Electric Vehicles on the Central European Power System in 2030

Patrick Eser, Laboratory for Energy Conversion, ETH Zurich, Switzerland
Ndaona Chokani, Laboratory for Energy Conversion, ETH Zurich, Switzerland
Reza S. Abhari, Laboratory for Energy Conversion, ETH Zurich, Switzerland

S29 - Electricity market design, regulation and monitoring

June 9 - 14:00 – 15:30 – Room B020

Chair: Samuli Honkapuro, Lappeenranta University of Technology, Lappeenranta, Finland

10408 Implementation of Dynamic Tariffs in the Portuguese Electricity System – Preliminary

Results of a Cost-Benefit Analysis

João T. Saraiva, INESC TEC and FEUP, Portugal

José N. Fidalgo, INESC TEC and FEUP, Portugal

Rui B. Pinto, INESC TEC, Portugal

Ruben F. Soares, INESC TEC, Portugal

José S. Afonso, EDP Distribuição, Portugal

Guido Pires, EDP Distribuição, Portugal

10367 The Importance of Accurate Transmission System Model for Cross Border Exchange of Balancing Energy

Iason Avramiotis-Falireas, Swissgrid Ltd., Switzerland

Haoyuan Qu, Swissgrid Ltd., Switzerland

Farzaneh Abbasourtorbati, Swissgrid Ltd., Switzerland

Marek Zima, Swissgrid Ltd., Switzerland

10297 Market barriers for harmonised demand-response in balancing reserves: cross-country comparison

Koen Verpoorten, KU Leuven, Energyville, Belgium

Cedric De Jonghe, KU Leuven, Energyville, Belgium

Ronnie Belmans, KU Leuven, Energyville, Belgium

10296 Auctions for Congestion Management on Distribution Grids

Rens Philipsen, Delft University of Technology, Netherlands

Mathijs M. de Weerd, Delft University of Technology, Netherlands

Laurens J. de Vries, Delft University of Technology, Netherlands

10277 The role of residential prosumers initiating the energy innovation ecosystem to future flexible energy system

Kirsi Kotilainen, Tampere University of Technology, Finland

Saku J. Mäkinen, Tampere University of Technology, Finland

Pertti Järventausta, Tampere University of Technology, Finland

Antti Rautiainen, Tampere University of Technology, Finland

Joni Markkula, Tampere University of Technology, Finland

S30 - Electricity markets & grid planning and operation: Hydro Power Strategies and RES

June 9 - 14:00 – 15:30 – Room B023

Chair: Helena Vasconcelos, FEUP and INESC TEC, Porto, Portugal

10619 Increasing the market value of solar and wind power through interconnection

Åsa G. Tveten, Norwegian University of Life Sciences, Norway

Torjus F. Bolkesjø, Norwegian University of Life Sciences, Norway

10520 Optimal structure of the RES in distribution systems

Mateusz Andrychowicz, Lodz University of Technology, Poland

Blazej Olek, Lodz University of Technology, Poland

- 10141 Opportunity-cost-pricing of reserves for hydropower units**
Pål Henrik Roti, Norwegian University of Science and Technology, Norway
Ellen Krohn Aasgård, Norwegian University of Science and Technology, Norway
- 10130 Modelling start/stop in multimarket hydropower scheduling**
Marte Fodstad, SINTEF Energy Research, Norway
Arild Helseth, SINTEF Energy Research, Norway
Arild Lote Henden, SINTEF Energy Research, Norway
- 10650 Simulation of the operation of hydro plants in an electricity market using Agent Based Models – introducing a Q-Learning approach**
José Carlos Sousa, FEUP/DEEC and EDP Produção, Portugal
João Tomé Saraiva, FEUP/DEEC and INESC TEC, Portugal

S31 - Power Generation and renewable energies: Storage II

June 9 - 14:00 – 15:30 – Room B026

Chair: João Peças Lopes, FEUP and INESC TEC, Porto, Portugal

- 10711 A reduction of fixed distribution grid fees by combined PV and battery systems**
Johannes Schmidt, University of Natural Resources and Life Sciences, Vienna, Austria
Sebastian Wehrle, University of Natural Resources and Life Sciences, Vienna, Austria
Rezania Rusbeh, Private, Austria
- 10594 Increasing the hosting capacity of distribution grids by implementing residential PV storage systems and reactive power control**
Oscar Camacho Rascon, Reiner Lemoine Institute gGmbH, Germany
Matthias Resch, Reiner Lemoine Institute gGmbH, Germany
Birgit Schachler, Reiner Lemoine Institute gGmbH, Germany
Jochen Bühler, Reiner Lemoine Institute gGmbH, Germany
Andreas Sumper, Universitat Politècnica de Catalunya, Spain
- 10587 Influence of Distributed Storage Systems and Network Switching/Reinforcement on RES-based DG Integration Level**
M.R.M. Cruz, FEUP, Portugal
S.F. Santos, UBI, Portugal
D.Z. Fitiwi, UBI, Portugal
J.P.S. Catalão, FEUP, Portugal
- 10405 Optimization of the Variable Speed Pump Storage Participation in Frequency Restoration Reserve Market**
J.M. Filipe, INESC TEC, FEUP, Portugal
R.J. Bessa, INESC TEC, Portugal
B. Silva, INESC TEC, Portugal
C. Moreira, INESC TEC, FEUP, Portugal

10274 Optimization of Frequency Containment Reserve Provision in M5BAT Hybrid Battery Storage

Daniel Schweer, Institute of Power Systems and Power Economics (IAEW) at RWTH Aachen University, Germany

Maaz Andreas, Institute of Power Systems and Power Economics (IAEW) at RWTH Aachen University, Germany

Albert Moser, Institute of Power Systems and Power Economics (IAEW) at RWTH Aachen University, Germany

**S32 - Modelling, simulation and forecasting of energy and carbon markets:
Modelling of Energy Markets IV**

June 9 - 14:00 – 15:30 – Room B029

Chair: Jorge Pereira, FEP and INESC TEC, Porto, Portugal

10493 Reconfiguration of Distributed Generation Scheduling to Increase Demand Response Integration

João Spinola, Polytechnic of Porto, Portugal

Pedro Faria, Polytechnic of Porto, Portugal

Zita Vale, Polytechnic of Porto, Portugal

10346 Impact of a large-scale market integration on the orientation of photovoltaic modules

Josef Bogenrieder, Bavarian Center of Applied Energy Research, Germany

Christian Sölch, FAU Erlangen-Nürnberg, Bavarian Center of Applied Energy Research, Germany

Patrick Hösch, FAU Erlangen-Nürnberg, Germany

Christoph J. Brabec, FAU Erlangen-Nürnberg, Bavarian Center of Applied Energy Research, Germany

10293 Economics of control reserve provision by fluctuating renewable energy sources

Malte / MJ Jansen, Fraunhofer Institute for Wind Energy and Energy System Technology, Germany

10273 Opportunities of bioenergy based CHP production in balancing renewable power production

J Haakana, Lappeenranta University of Technology, Finland

S Rinne, Aalto University, Finland

V Tikka, Lappeenranta University of Technology, Finland

J Lassila, Lappeenranta University of Technology, Finland

J Partanen, Lappeenranta University of Technology, Finland

10227 Modelling short-term electricity markets and assessing impacts of energy policies with the OPTIMATE prototype simulation platform

Sophie Dourlens-Quaranta, TECHNOFI, France

Yvann Nzengue, TECHNOFI, France

Eric Peirano, TECHNOFI, France

Adrien Atayi, RTE, France

Marco Schudel, RTE, France

S33 - Electricity market design, regulation and monitoring: Analysis of different countries/markets

June 9 - 16:00 – 17:30 – Room B020

Chair: Leonel Carvalho, INESC TEC, Porto, Portugal

11776 The role of imbalance settlement mechanisms in electricity markets: a comparative analysis between UK and Brazil

Ana Luiza Souza Mendes, UFRJ, Brazil

Nivalde de Castro, UFRJ, Brazil

Roberto Brandão, UFRJ, Brazil

Lorrane Câmara, UFRJ, Brazil

10645 Discussion on China's Power Sector Reforms and Where to Next?

Qingnan Li, University of Southern Denmark, Denmark

Zheng Ma, University of Southern Denmark, Denmark

Bo Nørregaard Jørgensen, University of Southern Denmark, Denmark

10461 Effects of risk aversion on investment decisions in electricity generation: what consequences for market design?

Marie Petitot, RTE and Paris-Dauphine University, France

10315 Overview of the electricity system market and service layers in France, UK and Germany

Regine Belhomme, EDF R&D, France

Marc Trotignon, EDF R&D, France

Jérôme Cantenot, EDF R&D, France

Anes Dallagi, EDF Energy R&D UK Centre, United Kingdom

Emmanuel Cerqueira, EDF Energy R&D UK Centre, United Kingdom

Bastian Hoffmann, EIFER, Germany

Jannis Bürger, EIFER, Germany

10268 The Swiss energy transition: A demand side perspective

Alessandra Motz, Università della Svizzera italiana, Switzerland

Maggi Rico, Università della Svizzera italiana, Switzerland

S34 - Electricity markets & grid planning and operation: Transmission and Distribution Networks Planning and Management

June 9 - 16:00 – 17:30 – Room B023

Chair: Manuel Matos, FEUP and INESC TEC, Porto, Portugal

10635 Integrating Customers' Differentiated Supply Valuation in Distribution Network Planning and Charging

Hadi Karimi Khouzani, Imperial College London, United Kingdom

Dimitrios Papadaskalopoulos, Imperial College London, United Kingdom

Goran Strbac, Imperial College London, United Kingdom

10588 Distribution System Reconfiguration with Variable Demands Using the Opt-aiNet Algorithm

Simone S. F. Souza, UNESP, Univ. Estadual Paulista Júlio de Mesquita Filho, Brazil

Ruben Romero, UNESP, Univ. Estadual Paulista Júlio de Mesquita Filho, Brazil

Jorge Pereira, INESC TEC and FEP, Portugal

João T. Saraiva, INESC TEC and FEUP, Portugal

- 10552 Evaluation of the Performance of Space Reduction Techniques using AC and DC Models in Transmission Expansion Problems**
Phillipe G. Vilaça, INESC TEC, Brazil
João T. Saraiva, INESC TEC, Portugal
- 10290 Ant colony optimization of maintenance and replacement strategies in transmission systems**
Alexander Rhein, Darmstadt University of Technology, Germany
Gerd Balzer, Darmstadt University of Technology, Germany
- 10261 Stochastic Planning of Distribution Lines**
Antans Sauhats, Riga Technical University, Latvia
Lubova Petrichenko, Riga Technical University, Latvia
Svetlana Beryozkina, Riga Technical University, Latvia
Nauris Jankovskis, JSC "Latvenergo", Latvia
- S35 - Modelling, simulation and forecasting of energy and carbon markets: Markets and Policy III**
June 9 - 16:00 – 17:30 – Room B026
Chair: Nuno Fidalgo, FEUP and INESC TEC, Porto, Portugal
- 10554 The European Target Model and the Impact of Implicit Auctions on Interconnection Capacity Prices**
Gregory P. Swinand, London Economics, United Kingdom
Amy O'Mahoney, Ofgem, United Kingdom
Ashwini Natraj, London Economics, United Kingdom
- 10522 Electricity load clustering of Iranian power system and its application in designing proper tariffs**
Elnaz Azizi, University of Tabriz, Iran
Hamed Kharrati, University of Tabriz, Iran
Behnam Mohammadi, University of Tabriz, Iran
- 10247 Impact of Carbon Taxes on the Interconnected Central European Power System of 2030**
Patrick Eser, Laboratory for Energy Conversion, ETH Zurich, Switzerland
Ndaona Chokani, Laboratory for Energy Conversion, ETH Zurich, Switzerland
Reza S. Abhari, Laboratory for Energy Conversion, ETH Zurich, Switzerland
- 10228 A Methodology to Analyse Large Scale Interconnected Power and Gas Systems**
Joseph Devlin, Queen's University Belfast, United Kingdom
Kang Li, Queen's University Belfast, United Kingdom
Paraic Higgins, Queen's University Belfast, United Kingdom
Aoife Foley, Queen's University Belfast, United Kingdom
- 10320 International Trade in Renewable Energy with Cooperation Mechanisms: A CGE Analysis**
Rita Sousa, NIPE and School of Economics and Management, University of Minho, Portugal
Antonio Gómez-Plana, Department of Economics, Public University of Navarre, Spain

S36 - Present and future of gas and coal markets

June 9 - 16:00 – 17:30 – Room B029

Chair: Fernando Maciel Barbosa, FEUP and INESC TEC, Porto, Portugal

10546 Modelling of world LNG market development: focus on US investments and supplies

Igor Riepin, BTU Cottbus-Senftenberg, Germany

Roland Montenegro, BTU Cottbus-Senftenberg, Germany

Philipp Hauser, Technische Universität Dresden, Germany

10543 Pathways for the European Natural Gas Market

J. Abrell, ETH Zürich, Switzerland

L. Chavaz, University of Basel, Switzerland

H. Weigt, University of Basel, Switzerland

10282 Gas Markets in Flux: Analysis of Components and Influences for Natural Gas Pricing in Europe

Philipp Hauser, Technische Universität Dresden, Germany

Matthew Schmidt, Technische Universität Dresden, Germany

Dominik Möst, Technische Universität Dresden, Germany

10204 Liquidity in the NBP Forward Market

Lilian M. de Menezes, Cass Business School, City University London, United Kingdom

Marianna Russo, Cass Business School, City University London, United Kingdom

Giovanni Urga, Cass Business School, City University London, United Kingdom

10151 Major Drivers of Carbon Intensity Changes in East Asia Pacific Emerging Countries. Lessons for climate policy design.

Miguel Rodríguez, Universidade de Vigo, Spain

Yolanda Pena-Boquete, Universidade de Vigo, Spain

Closing Session

June 9 - 17:30 – 18:00 – Room Auditorium A