

Presentations

S1: Session 1

Time: Tuesday, 28/May/2013: 11:30am - 1:00pm · Location: Q31

S1: 1

Cost-Benefit Analysis of Multi-Terminal VSC-HVDC System Using a Proposed Mixed AC/DC Optimal Power Flow

FENG WANG¹, Tuan Le¹, Lina Bertling Tjernberg¹, Anders Mannikoff², Anders Bergman²

¹Chalmers University of Technology, Sweden; ²SP Technical Research Institute of Sweden, Sweden; feng.wang@chalmers.se

S1: 2

Transmission Planning with Probabilistic Modeling of Multiple Contingencies

Mahir Sarfati, Olga Galland, Mohammad Hesamzadeh

KTH Royal Institute of Technology, Sweden; sarfati@kth.se

S1: 3

The Benefit of Coordinating Congestion Management in Germany

Friedrich Kunz, **Alexander Zerrahn**

DIW Berlin, Germany; azerrahn@diw.de

S1: 4

Transmission Infrastructure Investment Requirements in the Future European Low-carbon Electricity System

Danny Pudjianto, Manuel Castro, Marko Aunedi, Goran Strbac, Enrique Gaxiola

Imperial College London, United Kingdom; d.pudjianto@imperial.ac.uk

S1: 5

Generation Investment and Transmission Expansion with Intermittent Resources

Lajos Maurovich Horvat¹, Trine Krogh Boomsma², Stein-Erik Fleten³, Afzal Siddiqui^{1,4}

¹University College London, United Kingdom; ²University of Copenhagen, Denmark; ³Norwegian University of Science and Technology, Norway; ⁴Stockholm University, Sweden; l.horvat@ucl.ac.uk

S2: Session 2

Time: Tuesday, 28/May/2013: 11:30am - 1:00pm · Location: Q33

S2: 1

Optimal Placement of EV charging station in Typical microgrid in Iran

Navid Rastegarfar², Babak Kashanizadeh¹, ali barband¹, Mehdi Vakilian²

¹TVEDC, Iran, Islamic Republic of; ²Sharif University of Technology; navid_rastegarfar@yahoo.com

S2: 2

Loss Reduction via Network Reconfigurations in Distribution Networks with Installed Photovoltaic Units

Aggelos S. Bouhouras^{1,2}, Theofilos A Papadopoulos^{1,2}, Georgios C Christoforidis², Grigoris K Papagiannis¹, Dimitris P. Labridis¹

¹Aristotle University of Thessaloniki (AUTH); ²Department of Electrical Engineering, Technological Education Institution of Western Macedonia, Greece; abouchou@auth.gr

S2: 3

A Modeling Breakthrough for Market Design Analysis to Test Massive Intermittent Generation Integration in Markets: Results of selected OPTIMATE studies

François Beaudé¹, Adrien Atayi¹, Jean-Yves Bourmaud¹, Marcelo Saguan², Vincent Rioux², Jean-Michel Glachant², Dietmar Graeber³, Enrique Rivero Puente⁴, Sascha Schröder⁵, Poul Erik Morthorst⁵, Lena Kitzing⁵, Tiziana Pagano⁶, Athanase Vafeas⁶

¹RTE; ²Florence School of Regulation, European University Institute; ³TransnetBW; ⁴Institute for Research in Technology (IIT) - University Pontificia Comillas; ⁵DTU Management Engineering (Technical University of Denmark); ⁶TECHNOFI; tpagano@symples.eu

S2: 4

Wind – quo vadis? A spatially explicit assessment of the impact of fixed vs. premium based feed-in tariffs on the deployment of wind turbines

Johannes Schmidt, Georg Lehecka, Viktoria Gass, Erwin Schmid

University of Natural Resources and Life Sciences, Austria; johannes.schmidt@boku.ac.at

S3: Session 3

Time: Tuesday, 28/May/2013: 11:30am - 1:00pm · *Location:* Q34

S3: 1

Importance of Design Parameters on Flowbased Market Coupling Implementation

Alain Marien, Patrick Luickx, Andreas Tirez, Dominique Woitrin
CREG, Belgium; ama@creg.be

S3: 2

European market integration with both physical and non-physical markets

Gregory Dourbois, Dimitris Chatzigiannis, Pandelis Biskas, Anastasios Bakirtzis
Aristotle University of Thessaloniki, Greece; gdourmpo@auth.gr

S3: 3

Economic impacts of price spreads in the Nordic electricity markets

Mari Makkonen, Satu Viljainen, **Petr Spodniak**
Lappeenranta University of Technology, Finland; petr.spodniak@lut.fi

S3: 4

Energy Analysis of Trigeneration Based on Scarce Data

Satya Gopisetty¹, Peter Treffinger²

¹Offenburg University of Applied Sciences, Germany; ²Offenburg University of Applied Sciences, Germany; satya.gopisetty@hs-offenburg.de

S3: 5

Support schemes and market design in international offshore grids

Sascha T. Schröder
Technical University of Denmark, Denmark; sasc@dtu.dk

S4: Session 4

Time: Tuesday, 28/May/2013: 11:30am - 1:00pm · Location: Q36

S4: 1

Accounting for preference heterogeneity among residential energy consumers

Yingkui Yang¹, Wolfgang Haider², Hans Stubbe Solgaard³

¹University of Southern Denmark, Denmark; ²Simon Fraser University; ³University of Southern Denmark, Denmark;
yya@sam.sdu.dk

S4: 2

The Relationship of Constraints Cost and Load Factor:A Evaluation for the Improved ICRP Method

Jiangtao Li, Chenchen Yuan, Furong Li

University of Bath, United Kingdom; J.Li@bath.ac.uk

S4: 3

Residential Market facing the New Challenges of Application of Energy Hourly Rate

Iuri Castro Figueiró, Alzenira da Rosa Abaide, Daniel Pinheiro Bernardon, Nelson Knak Neto

Federal University of Santa Maria - UFSM, Brazil; nelsonknakneto.eng@gmail.com

S4: 4

Economic Potential of Power-to-Gas Energy Storages

Christoph Baumann, Roland Schuster, Albert Moser

IAEW, RWTH Aachen University, Germany; bm@iaew.rwth-aachen.de

S4: 5

Barriers to increased electricity interconnection between neighbouring markets

Inna Lytvyn, Neil Hewitt

University of Ulster, United Kingdom; i.lytvyn@ulster.ac.uk

S5: Session 5

Time: Tuesday, 28/May/2013: 2:00pm - 3:30pm · Location: Q31

S5: 1

Integration of Central West Europe Spot Electricity Markets: An update

Nuno Carvalho Figueiredo^{1,2}, **Patrícia Pereira da Silva**^{1,3}

¹Universidade de Coimbra, Portugal; ²Sustainable Energy Systems, MIT-Portugal; ³INESCC Portugal;
nuno.figueiredo@portugen.com

S5: 2

Structural Breaks, Price and Income Elasticity and Forecast of the Monthly Italian Electricity Demand

Claudio Dicembrino¹, **Giovanni Trovato**²

¹Enel spa, Italy; ²University of Rome "Tor Vergata"; claudio.dicembrino@enel.com

S5: 3

On the Design of Electricity Auctions with Non-Convexities and Make-Whole Payments

Panagiotis Andrianesis, **George Liberopoulos**

University of Thessaly, Greece; pandrianesis@hotmail.com

S5: 4

What Makes a Good Hourly Price Forward Curve?

Marcus Hildmann¹, **Grégoire Caro**², **Donnacha Daly**², **Sebastiano Rossi**², **Göran Andersson**¹

¹ETH Zürich, Switzerland; ²swissQuant Group AG, Zürich, Switzerland; caro@swissquant.ch

S5: 5

Hourly energy and secondary reserve joint dispatch with a hydro-thermal technological based representation

Pablo González Gascón y Marín, **Cristian A. Diaz**, **José Villar**, **Alberto Campos**

Institute for Research in Technology (IIT), Spain; pablo.gonzalez@iit.upcomillas.es

S6: Session 6

Time: Tuesday, 28/May/2013: 2:00pm - 3:30pm · Location: Q33

S6: 1

Using market schedules to improve secondary control design

Ana Virag¹, Andrej Jokic², Paul P.J. van den Bosch¹, Paul P.M.J. Van den Hof¹

¹Technical University Eindhoven, Netherlands, The; ²University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture; a.virag@tue.nl

S6: 2

Evolution of the Continuity of Supply in the Portuguese Distribution Network and Comparison with other European Countries

Sergio Faias^{1,2,3}, Jorge Esteves¹

¹ERSE - Entidade Reguladora dos Serviços Energéticos, Portugal; ²ISEL - Lisbon Engineering Superior Institute, Portugal; ³Cie3 - Center for Innovation in Electrical and Energy Engineering, Portugal; sfaias@erse.pt

S6: 3

A Multicriteria Approach for Meter Placement in Distribution Systems

Rafael G. Milbradt¹, Luciane N. Canha¹, Pedro B. Zorrilla¹, Alzenira R. Abaide¹, Paulo R. Pereira², Sandro M. Schmaedecke²

¹Federal University of Santa Maria, Brazil; ²Electric State Company of Rio Grande do Sul, Brazil; [milbradt@gmail.com](mailto:rmilbradt@gmail.com)

S6: 4

Incentive from network regulation for distribution system operators to integrate distributed generation: the Portuguese case.

Angela Picciariello, Karin Alvehag, Lennart Söder

KTH, Sweden; angela.picciariello@ee.kth.se

S6: 5

Comparison of the approaches to network consideration in market clearing: test case EU-FP7ADDRESS

Marija Zima-Bockarjova, Gregory Ledva

ABB Corporate Research, Switzerland; marija.zima@ch.abb.com

S7: Session 7

Time: Tuesday, 28/May/2013: 2:00pm - 3:30pm · Location: Q34

S7: 1

Fukushima Effect on Commodity Prices

Angelica Gianfreda¹, **Giacomo Scandolo**²

¹London Business School, United Kingdom; ²University of Verona; agianfreda@london.edu

S7: 2

Market fallout from the Japanese Earthquake

Luigi Grossi¹, **Michael Waterson**²

¹University of Verona, Italy; ²University of Warwick, UK; luigi.grossi@univr.it

S7: 3

Electricity supply security in Kosovo in a short, medium and long-term perspective

Nysret Zenun Avdiu

Energy Regulatory Office, Kosovo; nysretavdiu@uni-pr.edu

S7: 4

Model Predictive Control of a Large Fleet of Thermal Loads and Electric Power Generators, with an Assessment for the Netherlands

Gregory Ledva¹, **Robin Vujanic**¹, **Jasper Frunt**², **Sébastien Mariéthoz**¹, **Manfred Morari**¹

¹ETHZ, Switzerland; ²DNV KEMA, The Netherlands; vujanicr@control.ee.ethz.ch

S7: 5

Solar buildings in Austria: Methodology to assess the potential for optimal PV deployment

Marianne Zeyringer¹, **Dieter Mayr**², **Johannes Schmidt**², **Erwin Schmid**², **Sofia Simoes**¹, **Ernst Worrell**³, **Jon Lind**⁴

¹EC- Joint Research Centre- Institute for Energy and Transport, Netherlands, The; ²Institute for Sustainable Economic Development- University of Natural Resources and Life Sciences, Austria; ³Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands; ⁴Lund University; marianne.zeyringer@ec.europa.eu

S8: Session 8

Time: Tuesday, 28/May/2013: 2:00pm - 3:30pm · Location: Q36

S8: 1

Structural Breaks in Certificate Markets. Do multi-national markets decrease certificate price volatility?

Riccardo Fagiani, Rudi Hakvoort

Delft University of Technology, Netherlands, The; r.fagiani@tudelft.nl

S8: 2

Stochastic optimization models for the power generation capacity expansion problem with risk management.

Maria Teresa Vespucci¹, Stefano Zigrino¹, Marida Bertocchi¹, Laureano F. Escudero²

¹University of Bergamo, Italy; ²University Rey Juan Carlos; maria-teresa.vespucci@unibg.it

S8: 3

Independent Metering Operators – role, functions and place in the metering market structure

Przemysław Stangierski, Mariusz Przybylik, Krzysztof Jedziniak, Marcin Moczyróg, Marta Szostak

A.T. Kearney, Poland; krzysztof.jedziniak@atkearney.com

S8: 4

Optimal pricing behavior of vertically integrated utilities: theory and evidence from the Italian electricity wholesale market.

Bruno Bosco, **Lucia Parisio**, Matteo Pelagatti

University of Milan-Bicocca, Italy; lucia.parisio@unimib.it

S9: Session 9

Time: Wednesday, 29/May/2013: 11:30am - 1:00pm · Location: Q36

S9: 1

Procurement of control reserves in self-scheduling markets using stochastic programming approach: Swiss case

Farzaneh Abbaspourtorbati¹, Marek Zima²

¹swissgrid, Switzerland; ²swissgrid, Switzerland; Farzaneh.Abbaspourtorbati@swissgrid.ch

S9: 2

Capacity Based Grid Fees for Residential Customers

Johannes Jargstorf^{1,3}, Kris Kessels^{2,3}, Ronnie Belmans^{1,3}

¹KU Leuven, Belgium; ²VITO, Belgium; ³EnergyVille, Belgium; johannes.jargstorf@esat.kuleuven.be

S9: 3

PEV Fleet Scheduling with Electricity Market and Grid Signals: Capacity Demand Charges Based on DSO's Long Run Marginal Cost

Ilan Momber¹, Tomás Gómez², Lennart Söder³

¹SETS Joint Doctorate, Europe; ²CNE, Spain; ³KTH, Sweden; momber@kth.se

S9: 4

Are cross-border electricity transmission and pumped hydro storage complementary technologies?

Carlo Brancucci Martínez-Anido^{1,2}, Laurens de Vries²

¹European Commission, Joint Research Centre, Institute for Energy and Transport, Netherlands, The; ²Delft University of Technology, Faculty of Technology, Policy and Transport; carlo.brancucci@ec.europa.eu

S9: 5

Calculation of adequacy indices for interconnected Spanish electric systems in presence of RES, hydro and pump units

R López¹, J Revuelta², I Cobo³

¹REE, Spain; ²INSEAD Student, Singapore; ³ICAI, Spain; rlopezsanz@ree.es

S10: Session 10

Time: Wednesday, 29/May/2013: 11:30am - 1:00pm · Location: Q31

S10: 1

Forecasting of daily electricity spot prices by incorporating intra-day relationships: Evidence form the UK power market

Katarzyna Maciejowska, Rafał Weron

Wrocław University of Technology, Poland; katarzyna.maciejowska@pwr.wroc.pl

S10: 2

Modeling the Strategic Behaviour of the Iberian Electricity Market Producers using Time Series Analysis

Ricardo Faria¹, Jorge Sousa^{1,2}, Ana Martins^{1,3}, João Lagarto^{1,2,4}

¹ISEL - Lisbon Superior Engineering Institute, Portugal; ²Cie3 - Center for Innovation in Electrical and Energy Engineering; ³BRU-UNIDE; ⁴MIT Portugal Program in Sustainable Energy Systems, Technical Superior Institute (IST); jlagarto@deea.isel.ipl.pt

S10: 3

A Seasonal ARIMA Model With Exogenous Variables (SARIMAX) for Elspot Electricity Price Prediction in the Bidding Area of Sweden

Mengchen Xie¹, Claes Sandels², Kun Zhu², Lars Nordström²

¹University of Southern California, United States of America; ²Royal Institute of Technology, Sweden; mengchenxie@gmail.com

S10: 4

A resampling particle filter joint parameter estimation for electricity prices with jump diffusion

Bahri Uzunoglu¹, Dervis Bayazit²

¹Uppsala University Gotland Campus, Sweden; ²Federal Home Loan Bank of Atlanta, USA; bahri.uzunoglu@hgo.se

S10: 5

Spikes, Antispikes and Thresholds in Electricity Logprices

Carlo Lucheroni

Università di Camerino, Italy; carlo.lucheroni@unicam.it

S11: Session 11

Time: Wednesday, 29/May/2013: 11:30am - 1:00pm · Location: Q33

S11: 1

Mutually Beneficial? Germany's Energy Transition and the Internal Electricity Market

Thomas Sattich

Stiftung Wissenschaft und Politik, Belgium; thomas.sattich@swp-berlin.org

S11: 2

Flow-based Capacity Calculation Method Used in Electricity Market Coupling

Peter Sores, Daniel Divenyi, David Raisz

Budapest University of Technology and Economics, Hungary; sores.peter@gmail.com

S11: 3

Participation of electric heat pump resources in a day-ahead energy market under uncertainty

Nicholas Good¹, Alejandro Navarro-Espinosa¹, Efthymios Karangelos², Pierluigi Mancarella¹

¹University of Manchester, United Kingdom; ²University of Liege, Belgium; nicholas.good@manchester.ac.uk

S11: 4

New subsidies for renewables

Władysław Mielczarski

Technical University of Lodz, Poland; w.mielczarski@neostrada.pl

S11: 5

Congestion Management by Dispatch or Re-dispatch: Flexibility Costs and Market Power Effects

Linda Rud^{1,2}, Endre Bjørndal^{1,2}, Mette Bjørndal^{1,2}

¹NHH Norwegian School of Economics, Norway; ²SNF Institute for Research in Economics and Business Administration; endre.bjorndal@nhh.no

S12: Session 12

Time: Wednesday, 29/May/2013: 11:30am - 1:00pm · Location: Q34

S12: 1

European Energy Regulation: a Survey Analysis across Electricity segments

Francesca Pia Vantaggiato¹, **Angelica Gianfreda**²

¹EUI - RSCAS - FSR, Italy; ²London Business School; agianfreda@london.edu

S12: 2

Historical approach of European market. How does electricity investment decision evolve with historical context?

Bianka SHOAI TEHRANI¹, **Danièle ATTIAS**², **Jean-Guy DEVEZEAUX DE LAVERGNE**¹

¹CEA Saclay, France; ²Ecole Centrale Paris, France; bianka.shoai-tehrani@cea.fr

S12: 3

Merchant and Regulated Transmission Investment: The Case of the Baltic Sea Region

Clemens Gerbauet, **Casimir Lorenz**, **Alexander Weber**

TU Berlin, Germany; aw@wip.tu-berlin.de

S12: 4

Does regulatory independence translate into a higher degree of liberalization? - Evidence from EU energy regulators

Henrik Lindemann

University of Hannover, Germany; lindemann@sopo.uni-hannover.de

S12: 5

Spanish Coal Royal Decree: An Energy Security Measure

Cristian A. Diaz¹, **Mort Webster**², **Jose Villar**¹, **Fco. Alberto Campos**¹, **Pablo Gonzalez**¹

¹Comillas Pontifical University, Spain; ²Massachusetts Institute of Technology, USA; cristian.diaz@iit.upcomillas.es

S12: 6

A Formulation for Large-Scale Transmission Expansion Planning Problem and Solution Strategies

Desta Zahlay F.^{1,2}, **F. de Cuadra**², **I. J. Perez-Arriaga**², **M. Rivier**², **L. Olmos**²

¹Royal Institute of Technology, Sweden; ²Institute of Technology Research (IIT), Comillas University, Spain; fitiwi@kth.se

S13: Session 13

Time: Wednesday, 29/May/2013: 2:00pm - 3:30pm · Location: Q31

S13: 1

Strategic bidding of ancillary services for a hydro power producer

Hubert Abgottspon, Göran Andersson

ETH Zurich, Switzerland; abgottspon@eeh.ee.ethz.ch

S13: 2

Double-Sided Ancillary Services Markets: Design and Optimal Bidding Strategies

Laura Puglia¹, Ana Virag², Andrej Jokic³, Alberto Bemporad¹

¹IMT Alti Studi di Lucca, Italy; ²TU/e Eindhoven; ³University of Zagreb; laura.puglia85@gmail.com

S13: 3

The degree of rationality in actual bidding of hydropower at Nord Pool

Erik Nicholas Alnæs¹, Roger Grøndahl¹, Trine Krogh Boomsma², Stein-Erik Fleten¹

¹Norwegian University of Science and Technology, Norway; ²University of Copenhagen; stein-erik.fleten@iot.ntnu.no

S13: 4

Optimization of the bidding curve in reserve markets

Francisco **Alberto Campos**¹, Antonio Muñoz¹, Eugenio Francisco Sánchez-Úbeda¹, José Portela¹, Rafael González², Jorge Rodríguez², Avelino González²

¹Universidad Pontificia Comillas, Spain; ²Endesa, Spain; acampos@upcomillas.es

S13: 5

Demand Response for ancillary services via multi-agent contract design

Tobias W. Haring, Johanna L. Mathieu, Göran Andersson

ETH Zürich, Switzerland; tharing@eeh.ee.ethz.ch

S14: Session 14

Time: Wednesday, 29/May/2013: 2:00pm - 3:30pm · Location: Q33

S14: 1

Designing Financial Transmission Rights to Facilitate Hedging in Wholesale Electricity Markets

Darryl Biggar¹, **Mohammad Hesamzadeh**²

¹Australian Competition and Consumer Commission, Australia; ²Royal Institute of Technology (KTH), Sweden;
darryl.biggar@stanfordalumni.org

S14: 2

A pumped storage hydro unit operation with increasing degrees of market power: Standalone Vs Portfolio integration

Fábio Teixeira¹, **Jorge Sousa**^{1,2}, **Sérgio Faias**^{1,2}

¹ISEL - Lisbon Engineering Superior Institute; ²Cie3 - Center for Innovation in Electrical and Energy Engineering;
jsousa@deea.isel.ipl.pt

S14: 3

Support mechanisms and risk: implications on the Nordic electricity system

Lena Kitzing¹, **Hans Ravn**²

¹Technical University of Denmark (DTU), Denmark; ²RAM-løse; lkit@dtu.dk

S14: 4

Minimizing Market Risk by Trading Hydro-Wind Portfolio: A Complementarity Approach

Dorel Soares Ramos, **Luiz Armando Steinle Camargo**, **Ewerton Guarnier**, **Lucas Torres Witzler**

Universidade de São Paulo, Brazil; lascamargo@yahoo.com.br

S14: 5

An Integrated Approach to Congestion Management for European Energy Markets

Kwok W. Cheung, **Eric Goutard**, **Sami Ammari**

Alstom Grid; kwok.cheung@alstom.com

S15: Session 15

Time: Wednesday, 29/May/2013: 2:00pm - 3:30pm · *Location:* Q34

S15: 1

The Cost of Abating CO2 Emissions by Renewable Energy Incentives in Germany

Claudio Marcantonini, Denny Ellerman

European University Institute, Italy; claudio.marcantonini@eui.eu

S15: 2

Weak EU ETS with strong RES obligation compromises long-term CO2 mitigation

Sanna Syri, Sam Cross

Aalto University, Finland; sanna.syri@aalto.fi

S15: 3

The Economics of the CO2 Emission and Mitigation Modeling: A Study for China, USA and France in the Period 2010-2050

Wenhui TIAN, Pascal DA COSTA

Ecole Centrale Paris, France; wenhui.tian@ecp.fr

S15: 4

Dynamic interactions of renewable and carbon policies on power generation investments

Joern Constantin Richstein, Riccardo Fagiani, Laurens de Vries

Delft University of Technology, The Netherlands; j.c.richstein@tudelft.nl

S15: 5

Optimization of the Operation of Hydro Stations in Market Environment Using Genetic Algorithms

Gil Silva Sampaio¹, João Tomé Saraiva¹, José Carlos Sousa², Virgílio Mendes²

¹Univ. Porto & INESC TEC, Porto, Portugal; ²EDP Produção SA, Portugal; jose.sousa@edp.pt

S16: Session 16

Time: Thursday, 30/May/2013: 11:30am - 1:00pm · Location: Q31

S16: 1

Power flow control and its effect on flow based transmission cost allocation

Muhajir Tadesse Mekonnen, Dirk Van Hertem, Barry Rawn, Ronnie Belmans, Cedric De Jonghe
KU Leuven, Belgium; muhajir.mekonnen@esat.kuleuven.be

S16: 2

Turkey - Romania Subsea Transmission Cable Investment: Time for Reconsideration?

Burak Guler¹, Emre Celebi², David Fuller¹, Jatin Nathwani¹

¹University of Waterloo, Canada; ²Kadir Has University, Turkey; bguler@uwaterloo.ca

S16: 3

Towards Optimal Regulation of Transmission Network Investment under Renewable Integration

Jonas Egerer¹, **Juan Rosellon**², Wolf-Peter Schill³

¹TU Berlin; DIW Berlin; ²CIDE, Mexico; DIW Berlin, Germany; ³DIW Berlin; juan.rosellon@cide.edu

S16: 4

European Electricity Grid Infrastructure Expansion in a 2050 Context

Clemens Gerbaulet, Casimir Lorenz, Jonas Egerer

TU Berlin, Germany; cfg@wip.tu-berlin.de

S16: 5

Flow-Based Market Coupling and Price Zone Delineation: Prerequisites for an Efficient Capacity Allocation in a Zonal System

Pieter Schavemaker, René Beune

E-Bridge Consulting B.V., Netherlands, The; pschavemaker@e-bridge.com

S17: Session 17

Time: Thursday, 30/May/2013: 11:30am - 1:00pm · Location: Q33

S17: 1

Short-term demand response of flexible electric heating systems: the need for integrated simulations

Kenneth Bruninx, Dieter Patteeuw, Erik Delarue, Lieve Helsen, William D'haeseleer

KU Leuven, Belgium; kenneth.bruninx@mech.kuleuven.be

S17: 2

Assessing long-term effects of demand response programs in wholesale electricity markets

Mauricio Cepeda¹, Marcelo Saguan²

¹European energy regulatory authority; ²Microeconomix; imauricio.cepeda@gmail.com

S17: 3

Policies for Effective Electricity Market Design Supporting Demand Side Response: An International Comparison

Elta Koliou, Cherrille Eid, R.A. Hakvoort

TU Delft; e.koliou@tudelft.nl

S17: 4

The Collaboration Perspective Analysis of Smart Grid and Demand Response

Qin Zhang

State Grid Energy Research Institute, China, People's Republic of; zqfalcon@gmail.com

S17: 5

Residential Demand Response Program Design: Engineering and Economic Perspectives

Johanna L. Mathieu¹, Tobias Haring¹, John O. Ledyard², Göran Andersson¹

¹ETH Zurich, Switzerland; ²Humanities and Social Sciences, California Institute of Technology; jmathieu@eeh.ee.ethz.ch

S18: Session 18

Time: Thursday, 30/May/2013: 11:30am - 1:00pm · *Location:* Q34

S18: 1

Pricing Irish power futures – A comparative analysis of forward curves in European energy markets

Moya Marieta Enright

Dublin City University (DCU), Ireland; moya.enright@gmail.com

S18: 2

Tail events: A New Approach to Understanding Extreme Energy Commodity Prices

Nicolas Timon Koch

University of Hamburg, Germany; nicolas.koch@wiso.uni-hamburg.de

S18: 3

The Interdependency of Electricity and natural gas markets: Coupling of models

Maria Gil Medina, Pablo Dueñas, Javier Reneses

Institute for Research in Technology (IIT), Advanced Technical Engineering School (ICAI), Comillas Pontifical University;
maria.gil@iit.upcomillas.es

S18: 4

PV COMPETITIVENESS AND PV SUPPORT SCHEMES – ECONOMIC EFFECTS OF RENT SEEKING

Georg Lettner

Vienna University of Technology, Austria; lettner@eeg.tuwien.ac.at

S19: Session 19

Time: Thursday, 30/May/2013: 11:30am - 1:00pm · Location: Q36

S19: 1

The shape matters! How structural changes in the electricity load curve affect optimal investments in generation capacity

Tobias Boßmann, Benjamin Pfluger, Martin Wietschel

Fraunhofer ISI, Germany; tobias.bossmann@isi.fraunhofer.de

S19: 2

Financing investment in new electricity generation capacity: Impact of the implementation of a German capacity market on the North-West Europe

Ozge Ozdemir, Jeroen de Joode, Paul Koutstaal, Marit van Hout

Energy Research Center of the Netherlands, Netherlands, The; ozdemir@ecm.nl

S19: 3

3 Investment Scenarios for Generation IV Nuclear Reactors

Bianka SHOAI TEHRANI¹, Pascal DA COSTA²

¹CEA Saclay, France; ²Ecole Centrale Paris, France; bianka.shoai-tehrani@cea.fr

S19: 4

Load-Shifting Potentials in Households including Electric Mobility – a Comparison of User Behaviour with Modelling Results

Alexandra-Gwyn Paetz, Thomas Kaschub, Patrick Jochem, Wolf Fichtner

Karlsruhe Institute of Technology, Germany; paetz@kit.edu

S19: 5

Multi-national Transmission Planning Using Joint and Disjoint Solutions

Yaser Tohidi, Mohammad Reza Hesamzadeh

Royal Institute of Technology, Sweden; yaser.tohidi@ee.kth.se

S20: Session 20

Time: Thursday, 30/May/2013: 2:00pm - 3:30pm · *Location:* Q31

S20: 1

Electricity price evolution in the UK and Spain: A comparative analysis

Manoela Martinez-Castor de Cerqueira, Saturnino Catalan-Izquierdo, Cesar Cañas-Peñuelas, Jose Manuel Bueno-Barrachina

Universitat Politecnica de Valencia, Spain; mamarc16@upv.es

S20: 2

Dynamic electricity markets – The peak-load pricing model as a control theoretic problem

Jessica Raasch, Christoph Weber

University Duisburg-Essen, Germany; jessica.raasch@ibes.uni-due.de

S20: 3

Flat-rate pricing for grid usage in distribution grids

Bjoern Illing

Fraunhofer AST, Germany; bjoern.illing@iosb-ast.fraunhofer.de

S20: 4

Area Price Spreads in the Nordic Electricity Market: The Role of Cross-border Transmission Lines and Electricity Import Dependency

Petr Spodniak, Satu Viljainen, Ari Jantunen, Mari Makkonen

Lappeenranta University of Technology, Finland; petr.spodniak@lut.fi

S20: 5

Panel modelling of electricity prices: linear and nonlinear regression approaches

Carlo Lucheroni, Renato De Leone

Università di Camerino, Italy; carlo.lucheroni@unicam.it

S21: Session 21

Time: Thursday, 30/May/2013: 2:00pm - 3:30pm · Location: Q33

S21: 1

Vehicle-to-grid in France: which revenues for participation to the frequency regulation?

Marc Petit¹, Yannick Perez²

¹Supélec, France; ²Univ- Paris-Sud 11 Supélec, France; yannick.perez@u-psud.fr

S21: 2

Impact of Electricity Vehicles on the Electricity Prices and on the Load Curves of the Iberian Electricity Market

Ricardo Loureiro Gonçalves¹, João Tomé Saraiva¹, José Carlos Sousa², Virgílio Mendes²

¹Univ. Porto & INESC TEC, Porto, Portugal; ²EDP Produção SA, Portugal; ricardo.nl.goncalves@gmail.com

S21: 3

Stochastic Programming Based Model of An Electricity Retailer Considering Uncertainty Associated with Electric Vehicles Charging

Pavan Balram, Tuan Anh Le, Lina Bertling Tjernberg

Chalmers University of Technology, Sweden; pavan.balram@chalmers.se

S21: 4

Optimal Bidding Strategy of a Plug-in Electric Vehicle Aggregator in Day-ahead Electricity Markets

Marina González Vayá, Göran Andersson

ETH Zurich, Switzerland; gonzalez@eeh.ee.ethz.ch

S21: 5

Cost-benefit analysis of plug-in electric vehicles penetration

José Villar, Cristian Díaz, Pablo González, Ignacio Trigo

Universidad Pontificia Comillas, Spain; jose.villar@iit.upcomillas.es

S22: Session 22

Time: Thursday, 30/May/2013: 2:00pm - 3:30pm · Location: Q34

S22: 1

Feasibility of employing domestic active demand for balancing wind power generation

Kris Kessels^{1,3}, Daan Six^{1,3}, Muhajir T. Mekonnen^{2,3}, Benjamin Dupont^{2,3}

¹VITO, Belgium; ²KULeuven, Belgium; ³Energyville, Belgium; kris.kessels@vito.be

S22: 2

A Robust Hydro-thermal Scheduling Problem for a System Integrated with Wind Resource

Yuanhao Yang, Qiaozhu Zhai, Xiaohong Guan

Xi'an Jiaotong University, China, People's Republic of; ycyang1985@gmail.com

S22: 3

Optimal Renewable Generation Mix of Hydro, Wind and Photovoltaic for Integration into the Portuguese Power System

Jorge Sousa^{1,2}, Ana Martins^{1,3}

¹ISEL - Lisbon Engineering Superior Institute; ²Cie3; ³BRU-UNIDE; jsousa@deea.isel.ipl.pt

S22: 4

Optimal location of fast charging stations in Barcelona: A Flow-Refueling Approach

Miguel Cruz-Zambrano¹, Valeria Bernardo², Christina Corchero³, Lucia Igualada¹

¹Catalonia Institute for Energy Research, Spain; ²Universitat de Barcelona; ³Universitat Politecnica de Catalunya; macruz@irec.cat

S22: 5

EXPLORING THE FACTORS AFFECTING CLEAN DEVELOPMENT MECHANISM (CDM) IN DEVELOPING COUNTRIES

Pendo Kiviyiro

Lappeenranta University of Technology, Finland; pendo.kiviyiro@lut.fi

S23: Session 23

Time: Thursday, 30/May/2013: 2:00pm - 3:30pm · Location: Q36

S23: 1

Participation of wind power on the European balancing markets

José Pablo Chaves Ávila, Rudi Hakvoort

Delft University of Technology, Netherlands; j.p.chavesavilla@tudelft.nl

S23: 2

The impact of location on competitiveness of wind and PV power plants - case study for Austria

Sofia Simoes¹, Huld Thomas³, Mayr Dieter², Schmidt Johannes², Zeyringer Marianne^{1,2,4}

¹EC- Joint Research Centre- Institute for Energy and Transport, Netherlands, The; ²Institute for Sustainable Economic Development, University of Natural Resources and Life Sciences, Austria; ³EC- Joint Research Centre- Institute for Energy and Transport, Ispra, Italy; ⁴Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands; sofia.simoes@ec.europa.eu

S23: 3

Unit Commitment in fully Renewable, Hydro-Wind Energy Systems

MUSTAFA PEZIC, VANESA MORAY CEDRES

RED ELECTRICA DE ESPAÑA - REE, Spain; MPEZIC@REE.ES

S23: 4

A Dynamic Factor Model for Mid-term Forecasting of Wind Power Generation

Carolina García-Martos, María Jesús Sánchez

Technical University of Madrid, UPM, Spain; Garcia.martos@upm.es

S23: 5

How to Increase Wind Energy Targets with the Integration of Electric Vehicles into the Grid: An application to the Portuguese Case

Ezequiel Francisco Carvalho¹, Jorge Sousa^{1,3}, M. Ventim Neves²

¹ISEL- Lisbon Engineering Superior Institute, Portugal; ²FCT/UNL - Faculty of Science and Technology, Portugal; ³Cie3 - Center for Innovation in Electrical and Energy Engineering, Portugal; ecarvalho@deea.isel.ipl.pt

S24: Session 24

Time: Friday, 31/May/2013: 9:00am - 10:30am · Location: Q31

S24: 1

Expansion Planning of Electric Power Distribution Systems under the Paradigm of Price Cap Regulation

Moisés Machado Santos¹, Alzenira da R. Abaide¹, Julian Cezar Giacomini², Nelson Knak Neto¹

¹Federal University of Santa Maria; ²Regional University of Northwest Rio Grande do Sul; nelsonknakneto.eng@gmail.com

S24: 2

Modeling of Dynamic Procurement Auction of Long term supply contracts in Colombia's Electricity Market

Henry Camilo Torres Valderrama, Luis Eduardo Gallego Vega, Manuel Alejandro Poveda Nuñez

Universidad Nacional de Colombia, Colombia; mapovedan@unal.edu.co

S24: 3

Electricity Market Equilibrium Models with Dynamic Demand

Emre Celebi

Kadir Has University; ecelebi@khas.edu.tr

S24: 4

Electricity Spot Prices Structural Changes in the Iberian Electricity Market

João Bolas¹, Jorge Sousa^{1,2}, Ana Martins^{1,3}, João Lagarto^{1,2,4}

¹ISEL - Lisbon Superior Engineering Institute, Portugal; ²Cie3 - Center for Innovation in Electrical and Energy Engineering; ³BRU-UNIDE; ⁴MIT Portugal Program in Sustainable Energy Systems, Technical Superior Institute (IST); jlagarto@deea.isel.ipl.pt

S24: 5

Bilateral Contracts in Electricity Markets

Fernando Lopes¹, Hugo Algarvio², Helder Coelho³

¹LNEG, Portugal; ²LNEG, Portugal; ³University of Lisbon, Portugal; fernando.lopes@lneg.pt

S25: Session 25

Time: Friday, 31/May/2013: 9:00am - 10:30am · *Location:* Q33

S25: 1

Modeling and forecasting of the long-term seasonal component of the EEX and Nord Pool spot prices

Jakub Nowotarski, Jakub Tomczyk, Rafał Weron

Wrocław University of Technology, Poland; jakub.nowotarski@gmail.com

S25: 2

Time-sequence reserve products for electricity markets

Joseph Warrington, Sébastien Mariéthoz, Manfred Morari

Swiss Federal Institute of Technology (ETH) Zurich, Switzerland; warrington@control.ee.ethz.ch

S25: 3

Wearing Out The Regulator: Industry Response to Non-Credible High-Powered Regulatory Regimes

Per Agrell¹, Emili Grifell-Tatje²

¹Université Catholique de Louvain, Belgium; ²Universitat Autònoma de Barcelona, Sweden; per.agrell@uclouvain.be

S25: 4

Demand side management in an integrated electricity market: which impact on generation and environmental concerns?

Claire Bergaentzlé, Cédric Clastres

EDDEN-LEPI CNRS, France; claire.bergaentzle@upmf-grenoble.fr

S25: 5

Systemic Genetic Algorithms for the Design Development of the Electricity Market

Jerzy Rudolf Tachorzewski

Siedlce University of Natural Sciences and Humanities, Poland; jtchorzewski@interia.pl

S26: Session 26

Time: Friday, 31/May/2013: 9:00am - 10:30am · *Location:* Q34

S26: 1

A real options assessment of operational flexibility in district energy systems

Yerkin Kitapbayev¹, Pierluigi Mancarella¹, John Moriarty¹, Max Blochle²

¹The University of Manchester, United Kingdom; ²AIT Austrian Institute of Technology GmbH;
yerkin.kitapbayev@postgrad.manchester.ac.uk

S26: 2

Derivative regulation and its impact on energy and utility firms: A comparison of the EU and US new regulatory frameworks

Anastassios Gentzoglani

Université de Sherbrooke Québec, Canada; agentzoglani@gmail.com

S26: 3

Measuring Energy Security

Christian Winzer

EPRG, University of Cambridge, UK; c.b.winzer@gmail.com

S26: 4

Robustness of various capacity mechanisms to regulatory errors

Christian Winzer

EPRG, University of Cambridge, UK; c.b.winzer@gmail.com

S27: Session 27

Time: Friday, 31/May/2013: 9:00am - 10:30am · Location: Q36

S27: 1

The Impact of Renewables on Cycling of Conventional Power Plants

Kenneth Van den Bergh, Erik Delarue, William D'haeseleer

University of Leuven (KU Leuven), Belgium; kenneth.vandenbergh@mech.kuleuven.be

S27: 2

Control Power Demand and Variable Renewables: A Glimpse at German Data

Lion Hirth^{1,2}, Inka Ziegenhagen^{1,3}

¹Vattenfall GmbH, Germany; ²Potsdam-Institute for Climate Impact Research, Germany; ³University of Leipzig, Germany;
lion.hirth@vattenfall.com

S27: 3

Impacts of volatile and uncertain renewable energy sources on the German electricity system

Michael Zipf, Domink Möst

Dresden University of Technology, Germany; Michael.Zipf@tu-dresden.de

S27: 4

Verification of a model for handling of pumped storage for large scale balancing of new renewables

Geir Warland, Birger Mo, Arne Haugstad

SINTEF Energy Research, Norway; geir.warland@sintef.no

S27: 5

Impact of Energy Storage Devices on Energy Price in Decentralized Wind-Diesel Utilities

Ekaterina Moiseeva¹, Mohammad Hesamzadeh²

¹KTH Royal Institute of Technology, Sweden; ²KTH Royal Institute of Technology, Sweden; moiseeva@kth.se

S28: Session 28

Time: Friday, 31/May/2013: 11:00am - 12:30pm · Location: Q31

S28: 1

Expectation based reserve capacity dimensioning in power systems with an increasing intermittent feed-in

Christopher Breuer², Christian Engelhardt¹, Albert Moser³

¹Institute of Power Systems and Power Economics (IAEW), RWTH Aachen University, Germany; ²RWTH Aachen University, Germany; ³Institute of Power Systems and Power Economics (IAEW), RWTH Aachen University, Germany; christian.engelhardt@rwth-aachen.de

S28: 2

The effect of German strategic reserves on the central European electricity market

Pradyumna C. Bhagwat¹, Laurens J. de Vries²

¹Delft University of Technology, The Netherlands,; ²Delft University of Technology, The Netherlands,; P.C.Bhagwat@tudelft.nl

S28: 3

Analysis of the market conditions for storage in the German day-ahead and secondary reserve market

Thiemo Pesch, Peter Stenzel

Forschungszentrum Jülich, Germany; t.pesch@fz-juelich.de

S28: 4

Multi-market unit-commitment and capacity reserve prices in systems with a large share of hydro power: a case study

André Ortner¹, Christoph Graf²

¹Technical University of Vienna, Austria; ²University of Vienna, Austria; christoph.graf@univie.ac.at

S28: 5

Bilateral Contracts and Demand Response in Multi-Agent Electricity Markets

Fernando Lopes¹, Cristina Ilco², Jorge Sousa²

¹LNEG, Portugal; ²ISEL, Portugal; fernando.lopes@lneg.pt

S29: Session 29

Time: Friday, 31/May/2013: 11:00am - 12:30pm · *Location:* Q33

S29: 1

Enhancing the Direct Sales of Intermittent Renewable Electricity Production: Efficiency Considerations of a German Market Rule

Luisa Dressler

Université libre de Bruxelles (SBS-EM) and ECARES; luisa.dressler@ulb.ac.be

S29: 2

Progress in development of Renewable Electricity in Northern Europe in context of the EU 2020 Renewables target

Sam Cross¹, **Aira Hast**¹, **Sanna Syri**¹, **Reeli Kuhi-Thalfeldt**², **Juhan Valtin**²

¹Aalto University, Finland; ²Tallinn University of Technology; samuel.cross@aalto.fi

S29: 3

COMPETITION PERSPECTIVE OF ELECTRICITY SECTOR REFORMS - An Overview of Electricity Sector Reforms

Manuel Coxe

Solvay Brussels School of Economics and Management, Belgium; manuel.coxe@europex.org

S29: 4

Networked Business Model for Feasibility Analysis of Dynamic Electricity Pricing

Hanspeter Höschle, **Benjamin Dupont**, **Pieter Vingerhoets**, **Ronnie Belmans**

KU Leuven, Belgium; hanspeter.hoschle@esat.kuleuven.be

S29: 5

Asymmetry of Information and Demand Incentives in Energy Markets

Ariana Isabel Ramos Gutierrez^{1,2,3}, **Cedric De Jonghe**², **Daan Six**^{1,3}, **Ronnie Belmans**²

¹Flemish Institute for Technological Research; ²KU Leuven; ³Energyville; ariana.ramos@vito.be

S30: Session 30

Time: Friday, 31/May/2013: 11:00am - 12:30pm · *Location:* Q34

S30: 1

Deriving the Optimal Number of Clusters in the Electricity Consumer Segmentation Procedure

Ioannis Panapakidis, Minas Alexiadis, Grigoris Papagiannis

Aristotle University of Thessaloniki, Greece; ipanap@ee.auth.gr

S30: 2

Improvements in the Clustering Validity Indexes of the Load Profiling Methodology

Ioannis Panapakidis¹, Athanasios Dagoumas², Minas Alexiadis¹, Grigoris Papagiannis¹

¹Aristotle University of Thessaloniki, Greece; ²Power Exchange Division, Electricity Market Operator S.A. (LAGIE), Greece; ipanap@ee.auth.gr

S30: 3

Impact of different balancing zones on the capacity market design in Europe towards 2050

Zongyu Liu¹, Lou van der Sluis¹, Liang Tao², Enrique Gaxiola², Christine Schwaegerl², Christos Vasilakos Konstantinidis³

¹Delft University of Technology, the Netherlands; ²Siemens AG, Germany; ³Imperial College London, UK; zongyu.liu@tudelft.nl