

List of Posters

Poster Session – DER knowledge from the field

1. Demand Flexibility: DR, DSM

- 1.0.1 The ADDRESS Project: Objectives, first Draft Architecture and expected Results**
Dr. Regine Belhomme, EDF, Clamart, France; Eefje Peeters, VITO, Mol, Belgium; R. Cerero Real de Asua, Iberdrola Distribución, Bilbao, Spain; G. Valtorta and M. Lombardi, ENEL, Rome, Italy; A. Paice, ABB, Baden, Switzerland; F. Bouffard, University of Manchester, United Kingdom, R. Rooth, KEMA, Arnhem, The Netherlands; A. Losi, University of Cassino, Italy
- 1.0.2 The Flexibility Challenge - Creating new Flexibility between Consumption, Generation and Storage**
Dr. Regine Belhomme, A. Nekrassov and C. Nappez EDF, Clamart, France
- 1.0.3 Testing social acceptance of flexibility in the UK**
Maud Minoustchin, GDF SUEZ, Saint Denis La Plaine, France;
Jean-François Barthe, Christophe Beslay, Romain Gournet, Bureau d'études sociologiques C. Beslay, Toulouse, France
- 1.0.4 IEA-DSM Task XVII - Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages**
Matthias Stifter, arsenal research, Vienna, Austria
- 1.0.5 Market Data and Demand Response: Measuring the potential Value of Demand Response using historical Market Data**
Daniele Benintendi, Fondazione Eni Enrico Mattei, Brussels, Belgium and Milano, Italy; Graziano Abrate, Università di Novara and Fondazione Eni Enrico Mattei, Novara and Milano, Italy
- 1.0.6 Technical and economical tools to assess customer demand response in the commercial sector: application to the EU-DEEP field tests**
Carlos Álvarez Bel, David Alfonso Solar, Manuel Alcázar Ortega, Guillermo Escrivá and Antonio Miranda Bonet, Universidad Politécnica de Valencia, Valencia, Spain
- 1.0.7 Demand Response : A decisive Breakthrough for Europe**
Alain Chardon, Capgemini Energy Utilities, Paris La Defense, France
- 1.0.8 Demand Side Management: Exploring the Flexibility of a Cluster**
Dr. Fjo De Ridder, Flemish Institute for Technological Research, Mol, Belgium;
Fjo De Ridder, Maarten Hommelberg, Koen Remans and Eefje Peeters, Energy Technology, Flemish Institute for Technological Research, Mol, Belgium
- 1.0.9 Energy Efficiency of Switchable Mirror Window**



K. Yoshimura, K. Tajima, S. Bao, Y. Yamada and Dr. K. Tajiri, Dr. Koji Tajiri,
National Institute of Advanced Industrial Science and Technology (AIST),
Nagoya, Japan;

2. Generation & Storage Technologies

2.0.1 An auto regressive wind speed prediction tool dedicated to wind turbine farm design

Yuji Toshifumi, Faculty of Education and Culture, University of Miyazaki, Japan;
Toya Hideaki, Department of Electronics and Control Engineering, Tsuyama
National College of Technology, Okayama, Japan; Yorino Naoto and Zoka
Yoshifumi, Department Graduate School of Engineering, Hiroshima University,
Japan

2.0.2 Online Monitoring and Forecasting of PV Power in Germany

Dr. Christian Kurz, meteocontrol GmbH, Augsburg, Germany

2.0.3 Estimating to the potential of PV Systems to be introduced into the Energy system in Japan

Dr. Takashi Oozeki, Takao Yamada, Kenji Otani, Takumi Takashima, Kazuhiko
Kato, National Institute of Advanced Industrial Science and Technology, Ibaraki,
Japan; Akinobu Murata, National Institute of Advanced Industrial Science and
Technology (AIST), Energy Technology Research Institute, Tsukuba, Japan

2.0.4 Planning a Semi-Autonomous Energy Supply

M. Sc. Pio Lombardi, Chris O. Heyde, Günter Heidec and Zbigniew A.
Styczynski, Otto von Guericke University Magdeburg, Germany

2.0.5 Design of a Management and Simulation's Tool for Solar Car Park

Dr. Jens Merten, CEA-INES, Le Bourget du Lac, France

2.0.6 Energy Management of Distributed Generation

Dr. Rafael Lopez, AREVA T&D, Massy, France

2.0.7 Grid connected PV with Lithium-Ion Batteries as Energy Storage Systems

Guy Sarre, SAFT DTNT, Bordeaux Cedex, France

2.0.8 The Contribution of Domestic Appliances to the Integration of Renewables and DER

Dipl.-Ing. Christof Timpe, Oeko-Institut, Freiburg, Germany

2.0.9 Innovative Integrated Technologies for Energy and Micro-Generation Management and Energy-Saving Policies

M. Giacomini, Department of Communication, Computer and System Sciences,
DIST, Samuele Grillo and F. Silvestro Electrical Engineering Department, DIE,
L. Marigo Department of Turbomachinery, Energetic Systems and
Transportation DIMSET, University of Genova, Genova, Italy;

2.0.10 Electronet Lighting Africa Product Innovation: Smart Power Village Grid



Dipl. Ing. Rudy Forstmair and Petra M. Dobmeier, Agropark Climat Assoc, Nice, France;

2.0.11 DISH – Stirling Systems: Solar Thermal Power for Distributed Generation

Dr. Manuel Silva, AICIA, Seville, Spain

2.0.12 GAYA : An innovative Project to produce Energy from Biomass Gasification

Véronique Mambré, GDF SUEZ, Saint Denis la Plaine, France

3. DER Economics

3.0.1 Renewable Energy Grid Integration – Distributed Photovoltaic Studies

Dan Ton, Grid Integration, U.S. DOE, Washington, DC, USA; Benjamin Kroposki and Robert Margolis, National Renewable Energy Laboratory, USA; Juan Torres and Glenn Kuswa, Sandia National Laboratories, USA; Tom Key, Electric Power Research Institute, USA

3.0.2 Management tools for Distributed Energy Resources integration into energy markets

M. Sc. Jussi Ikkäheimo, VTT, Espoo, VTT, Finland; Konrad Purchala, Tractebel Engineering, Belgium; Erich Fuchs, Siemens, Austria; Roch Drozdowski, GDF SUEZ, France

3.0.3 Settlement structure based Analysis of Economic CHP Potential in Germany

Dipl.-Kaufmann Klaas Bauermann and Christoph Weber, Management Sciences and Energy Economics, Essen, Germany

3.0.4 Comparison of Benefits of distributed Generation Technologies using Multi-Criteria Analysis based on Hungarian Data

Zoltan Bessenyei, and Prof. Dr. Istvan Kromer, VEIKI, Budapest, Hungary

3.0.5 Scheduling and Control of Distributed Energy Resources in the European Electricity Market Environments

Dipl. Ing. Erich Fuchs, SIEMENS AG Austria, Vienna, Austria

4. Markets & Development (DER, Energy, Services)

4.0.1 Compatibility Level of PV Capacity in Urban Areas with a High Population of PV

Christof Wittwer, Fraunhofer ISE, Freiburg, Germany; Sjeff Cobben, Continuon Netbeheer, Arnhem, The Netherlands

4.0.2 A Review on Aggregation Approaches of Controllable Distributed Energy Units in Electrical Power Systems

Martin Braun, Philipp Strauss, ISET e.V. Kassel, Germany

4.0.3 EU-DEEP Main Results

Dr. Jacques Deuse, Tractebel Engineering, Brussels, Belgium; Gilles Bourgain,



GDF Suez Research & Innovation, Paris, France

4.0.4 A promising Business based on adapting Customer Demand to the Needs of the UK Electrical System

Dr. Guillaume Brecq, GDF SUEZ, Saint-Denis la Plaine, France

4.0.5 Medium size CHPs and their Ability to offer Balancing Services

PhD Konrad Purchala, Antonio Pereira, Jacques Deuse, Tractebel Engineering, Brussels, Belgium

4.0.6 Opportunities for Balancing Provision through the Use of Flexibility: Present and Future

Carlos Madina, LABEIN, Derio, Bizkaia, Spain

4.0.7 Innovative Training Techniques for Decision Makers on DER Investments

Athanase Vafeas, TECHNOFI, Sophia-Antipolis, France

4.0.8 Aggregation of μ CHP Units for Domestic Applications

Dipl.-Ing. Uwe Dietze, RWE Energy AG, Duisburg, Germany

4.0.9 Local Development in the Era of Scarce Resources: The closing Circle of Majella Bioenergy Park

Dr. Gianni Caramanico, University, G. D'Annunzio Chieti-Pescara, Patto Sviluppo Macella, Tavolo Majella, Pescara, Italy

4.0.10 Estimating the limit of the emission allowances in every day's electric power production

Phd cand. Efstathia Kolentini and Prof. Nikos Hatziargyriou, NTUA, Athens, Greece

4.0.11 Management of Uncertainty Related to Renewable Generation under Electricity Markets

Franck Bourry, Luís M. Costa and George Kariniotakis, Center for Energy and Processes MINES ParisTech, Sophia Antipolis, France

4.0.12 Virtual Power Plant - HARZ

M. Sc. Michal Powalko, Otto-von-Guericke University Magdeburg, Magdeburg, Germany

4.0.13 Prediction of Optimal Meteorological Conditions for Electrical Energy Generation by the Use of Artificial Neural Networks

Ignacio Benitez Sanchez, Laura Moreno Sarrion, Andres LLuna Arriaga and Alfredo Qijano Lopez, Instituto de Tecnologia Electrica (ITE). Valencia Spain

4.0.14 Intelligent Management of Sustainable Energy Networks

Hans Akkermans, Jaap Gordijin, Koen Kok, Sophia Derzsi and Vicent Pijpers, VU University Amsterdam, The Netherlands

Poster Session – DER in the distribution network

5. Distribution Network Architecture & Concepts

- 5.0.1 PRISMES: The INES Microgrid Platform**
Dr. Jens Merten, CEA-INES, Le Bourget du lac, France
- 5.0.2 Smart Planning Tools for Active Voltage Control**
DI. Benoît Bletterie and Helfried Brunner, arsenal research, Vienna, Austria
- 5.0.3 Harmonics induced in LV Networks by Photovoltaics**
Phd. student Joulia Papaioannou, M.C. Alexiadis, C. Demoulias, D. Labridis and P. Dokopoulo, Aristotle University of Thessaloniki, Greece
- 5.0.4 Making European Interconnection Requirements Transparent - The New DEDIS Data Base from DERlab**
Wolfram Heckmann, ISET e.V., Kassel, Germany
- 5.0.5 Micro-Grids: the Example of Princess Elisabeth Polar Station**
Didier Empain, Electrical Power System & Metrology, Laborelec, Linkebeek, Belgium
- 5.0.6 National Technology Platform – Smart Grids Austria**
DI Andreas Lugmaier, Siemens AG Austria, Wien, Austria; Hubert Fechner, Department for Renewable Energy Technology, arsenal research, Vienna, Austria; Wolfgang Prügler, Energy Economics Group, Vienna Technical University, Austria
- 5.0.7 DER, efficient Grid Costs Allocation Methodology and the “Full Value” of Network Connection**
Dr. Jacques Deuse, Tractebel Engineering, Brussels, Belgium
- 5.0.8 DER, Network Design and System Security**
Dr. Jacques Deuse, Tractebel Engineering, Brussels, Belgium
- 5.0.9 Limitations set by the Distribution Network against the large-Scale Integration of Distributed Energy Resources**
Math Bollen, Fainan Hassan, Yongtao Yang, STRI AB, Gothenburg, Sweden
- 5.0.10 Flex Power Grid Lab, a Research Laboratory to facilitate the Integration of Renewable and Distributed Energy Resources into the Grid**
Dr. Erik de Jong, KEMA Nederland N.V., Arnhem, Netherlands
- 5.0.11 Grid Stability Study for Large PV Penetration under Weather Disturbances-Implementation to the Power System of Kythnos**
Dr. Stathis Tselepis, Evangelos Rikos, CRES - Centre for Renewable Energy Sources, Athens, Greece; Aristomenis Neris, Division of Transmission System Planning, Hellenic Transmission System Operator, Athens, Greece
- 5.0.12 Demonstrating Co-ordinated Voltage Control Characteristic of Active Network Management**
Anna Kulmala, Tampere University of Technology, Tampere, Finland

- 5.0.13 Massive DER Penetration and Power System Control**
Dr. Jacques Deuse, HoFdistributed generationria Crisciu and Antonio Pereira, Tractebel Engineering, Brussels, Belgium
- 5.0.14 Frequency Control Problems in the Power System with Massive Penetration of Distributed Generation**
Dr. Jacques Deuse, Tractebel Engineering, Brussels, Belgium; Vladimir Chuvychin, Antans Sauhats, Vadims Strelkovs, Faculty of Power and Electrical Engineering, Riga Technical University Riga, Latvia
- 5.0.15 Load Shedding Issues in Presence of DER**
Dr. Jacques Deuse, Konrad Purchala and Antonio Pereira, Tractebel Engineering, Brussels, Belgium; V.Chuvychin, Aantans Sauhats, V.Strelkovs, Rubcov, Riga Technical University, Latvia
- 5.0.16 Multi Agent System for Creation of Virtual Power Plant (VPP) with aggregated Load Control**
Prof. Nikos Hatziaargyriou, Aris Dimeas, Spyros Chatzivassiliadis, Thomai Tomtsi and Panayiotis Moutis, Electric Power Division, National Technical University of Athens NTUA, Greece
- 5.0.17 Distributed Energy Resources and Power System Stability**
Jevgenijs Kuajevs, Faculty of Power and Electrical Engineering, Riga Technical University, Riga, Latvia.
- 5.0.18 E-Mobility and required Infrastructure for Smart Integration for Decentralised Mobile Electric Loads and Storages, visualised at the Show Case “Fleet Test Electro Mobility”**
Dr.-Ing. Christof Wittwer, Fraunhofer-Institut für Solare Energiesysteme ISE, Freiburg, Germany
- 5.0.19 Will DG turn Electricity Distribution into Transmission?**
Dr. Olof Samuelsson and Lars Gertmar, Lund University, Sweden
- 5.0.20 Shifting the Maximum Penetration Rate of Renewable Energy Resources on Power Systems using a new probabilistic Approach**
Herman Bayem and Frédéric Dufourd, EDF Research and Development, Clamart, France

6. Enabling Technologies for DER Integration

- 6.0.1 A Grid Test Platform existing of the Electrical Integration of Different Dedicated Labs**
MSc. Johan Van Bael, VITO, Mol, Belgium

- 6.0.2 MV Grid reactive Power Compensator based on a Four Level Power Electronic Converter**
Aitor Amezua, Research and Development, Oldar Electrónica, S.A., Igorre, Bizkaia, Spain; Francisco J. Pazos, Customer Technical Assistance, Iberdrola Distribución Eléctrica, S.A., Bilbao, Bizkaia, Spain; Josu Galarza, Electronics and Automation, University of Mondragon, Spain; Pedro G^a de Madinbeitia, Research and Development, JEMA-Jesús María Aguirre, S.A., Lasarte-Oria, Spain
- 6.0.3 The PowerMatcher Technology: Empowering the Smart Grid**
Koen Kok, René Kamphuis, Cor Warmer and Bart Roossien, ECN, The Netherlands; Maarten Hommelberg, VITO, Belgium
- 6.0.4 An Islanding Detection Enhancer for a System with multiple Inverters**
Associate Professor Luiz Lopes, Concordia University, Montreal, Canada
- 6.0.5 Design and Implementation of a Standard-Compliant CHP Control Unit – A Practical Evaluation of IEC 61850-7-420**
Dipl.-Inform. Tobias Weidelt, OFFIS e.V., Oldenburg, Germany
- 6.0.6 Bidirectional Energy Management Interfaces in Distribution Grid Operation – Strategy and Simulation**
Jan Ringelstein, ISET e.V., Kassel, Germany
- 6.0.7 Smart Metering and the Metering Needs of Flexible Distributed Energy Resources, State of the Art**
D. Sc Pekka Koponen, VTT Technical Research Centre of Finland, Espoo, Finland
- 6.0.8 Interactive Operation of Power-Electronics Interfaced Distributed Generation**
Dr. Fainan Hassan, STRI AB, Goth, Gothenburg
- 6.0.9 Interactive Customer Interface for advanced Distribution Management and Electricity Market**
Prof. Seppo Kärkkäinen, VTT Technical Research Centre of Finland, VTT, Finland
- 6.0.10 Innovative ICT Architectures applying semantically enhanced Information for an Intelligent Control of Future Power Grids**
Bernhard Schowe-von der Brellie, Forschungsgemeinschaft für Elektr.-Stromwirtschaft (FGH) e.V., Mannheim, Germany
- 6.0.11 Assessing power supply quality for upcoming generation shares**
Mathilde Drouineau, Mines Paristech, Center for Applied Mathematics Sophia Antipolis Cedex, France
- 6.0.12 ICT-enabled solutions for energy efficiency in buildings and neighbourhoods**



Régis Decorme, Alain Zarlil, Marc Bourdeau, Centre Scientifique et Technique du Bâtiment; Sophia Antipolis, France

7. Storage for Network

- 7.0.1 Vanadium Batteries as a mean of Integrating more Wind Energy**
Henrik Bindner, Risø DTU, Roskilde, Denmark
- 7.0.2 Grid Integration of DER with an Intelligent Distribution Station containing Electricity Storage**
MSc. Josco C.P. Kester, ECN, Petten, The Netherlands

8. Active Distribution Network Operation

- 8.0.1 Stabilizing the Grid Frequency Using Virtual Synchronous Generators – The VSYNC Project**
S. De Breucker, T. Loix, J. Driesen and R. Belmans, KU Leuven, Department of Electrical Engineering, Division Electrical Energy and Computer Architectures (ELECTA), Heverlee, Belgium; , K. Visscher, Energy Research Centre of the Netherlands (ECN), Petten, The Netherlands
- 8.0.2 An Evaluation of additional Supply Capability from Home-Cogeneration Systems for Power System Operating Reserve**
Dr. Hideharu Sugihara, Osaka University, Suita, Japan
- 8.0.3 Reduced Grid Models for Operation Management**
Bernhard Wille-Haussmann, Fraunhofer ISE, Freiburg, Germany
- 8.0.4 Load Management to install more Renewables**
Junji Kondoh, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki, Japan

9. Network & Market Regulation, Policies

- 9.0.1 Support for Cogeneration in Germany: The new CHP law and the miniCHP Investment Incentive**
Gunnar Kaestle, TU Clausthal, Clausthal-Zellerfeld, Germany
- 9.0.2 Policy-based Control for the Integration of small Energy Resources**
Oliver Gehrke, Risø DTU National Laboratory Technical University of Denmark, Roskilde, Denmark
- 9.0.3 CECRE: Main Tool for the present Operation of the Renewable Energies in Spain**
M. de la Torre, T. Domínguez, G. Juberías, E. Prieto and O. Alonso, REE RED ELECTRICA de ESPAÑA, Alcobendas, Spain

10. Large Scale Experiments

10.0.1 Validation of EU-DEEP Aggregation Businesses: 3 Test fields

Dr. Marc Berger, GDF SUEZ, Saint-Denis La Plaine, France; Uwe Dietze, RWE Energy, Duisburg, Germany; Mark Symes, Gaz de France ESS, Leeds, United Kingdom; Thomai Tomtsi, National Technical University of Athens (NTUA), Electric Power Division, Athens, Greece

10.0.2 The Bornholm Power System - Overview of on-going large Scale Experiments

Ass. Prof. John Eli Nielsen, Technical University of Denmark, Lyngby, Denmark; Jacob Østergaard, Centre for Electrical Technology, DTU Electrical Engineering, Copenhagen, Denmark

10.0.3 The first Field Test of Forty Micro-Combined Heat and Power (MCHP) Gas Boiler in France

Régis Contreau, GDF SUEZ, St. Denis La Plaine, France

10.0.4 Integral – The SmartPowerCity Demonstration

F.W. Bliiek, and J.W. Turkstra, Gasunie Engineering & Technology, The Netherlands; R. Kamphuis and K. Kok, EGON (Energie in de Gebouwe Omgeving & Netten), Energie Centrum Nederland, The Netherlands; J.v.d.Velde and J. de Wit, ICT embedded, The Netherlands

10.0.5 EMSE – Energy Management System Eichhof

Uwe Hoffstede, ISET e. V., Hanau, Germany

10.0.6 DER Implementation in Latvian Power System

Dr. sc. Ing. Anna Mutule, Irina Oleinikova and Antans Sauhats, Institute of Physical Energetics Riga Technical University, Riga, Latvia

10.0.7 Implementation of Agent based Control for Microgrids in the Island of Kythnos

Aris Dimeas, NTUA, Marousi-Athens, Greece