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CONFERENCE PROGRAMME



Sustainable Energy Policy and Strategies for Europe

14th IAEE European Energy Conference

October 28-31, 2014
Rome, Italy

in cooperation with



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Editorial Note

Dear Energy Colleague,

As Europe strives to overcome the economic crisis, energy stands out both as a conditioning factor and as an opportunity. The energy situation is evolving in Europe as well as in the rest of the world, where new actors, the emerging economies, are taking the leading role. Political developments in several areas of the globe (North Africa and Middle East, the Caspian region, ASEAN countries) are reshaping the geopolitical situation, generating some worries about the security of supply in the EU countries.

The crisis has somewhat released the pressure on energy demand and allowed to reach objectives in the reduction of greenhouse gas emissions that seemed out of reach, but as the European Energy Roadmap to 2050 makes clear the objectives for 2020 and beyond are likely to require a renewed, powerful effort as soon as the economy is back on the track.

Important steps towards the establishment of a really open and competitive energy market in Europe have been achieved, but much remains to be done. Energy technologies (as evidenced in the SET-Plan) have evolved and contributed new solutions, as in the case of non-conventional hydrocarbon resources, but this has happened more as gradual step-by-step improvements than by real breakthroughs. The evolution of these technologies has been influenced by the instruments adopted by governments to promote new sources or new solutions rather than directly by

market demand. The use of "market instruments" to steer the energy choices in the direction of sustainability is the subject of animated discussions, based on the analysis of diverse case studies. The hope of obtaining reductions of energy costs by these means has been often frustrated.

Some sectors show difficulties in moving in the right direction (in terms of economy as well as sustainability): the outstanding example is the transport sector, where, apart from the improvement of the efficiency of vehicles, there is little sign of moving from the present paradigm (with private prevailing over public transport, road over track and waterways,) and sporadic attempts are done to reduce the need of displacements (both of people and of goods). Another sector which is meeting institutional rather than technical difficulties is the building sector, especially as concerns distribution of costs and revenues among the different actors.

The 14th IAEE Conference will try to discuss all the issues related to European policy and its new perspectives in 8 plenary and 80 concurrent sessions that will be organized by the AIEE-Italian Association of Energy Economists and IAEE - The International Association for Energy Economics, in cooperation with the LUISS University, that will host this conference.

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Carlo Di Primio

General Conference Chair
Carlo Andrea Bollino

Organization

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Professor, LUISS University

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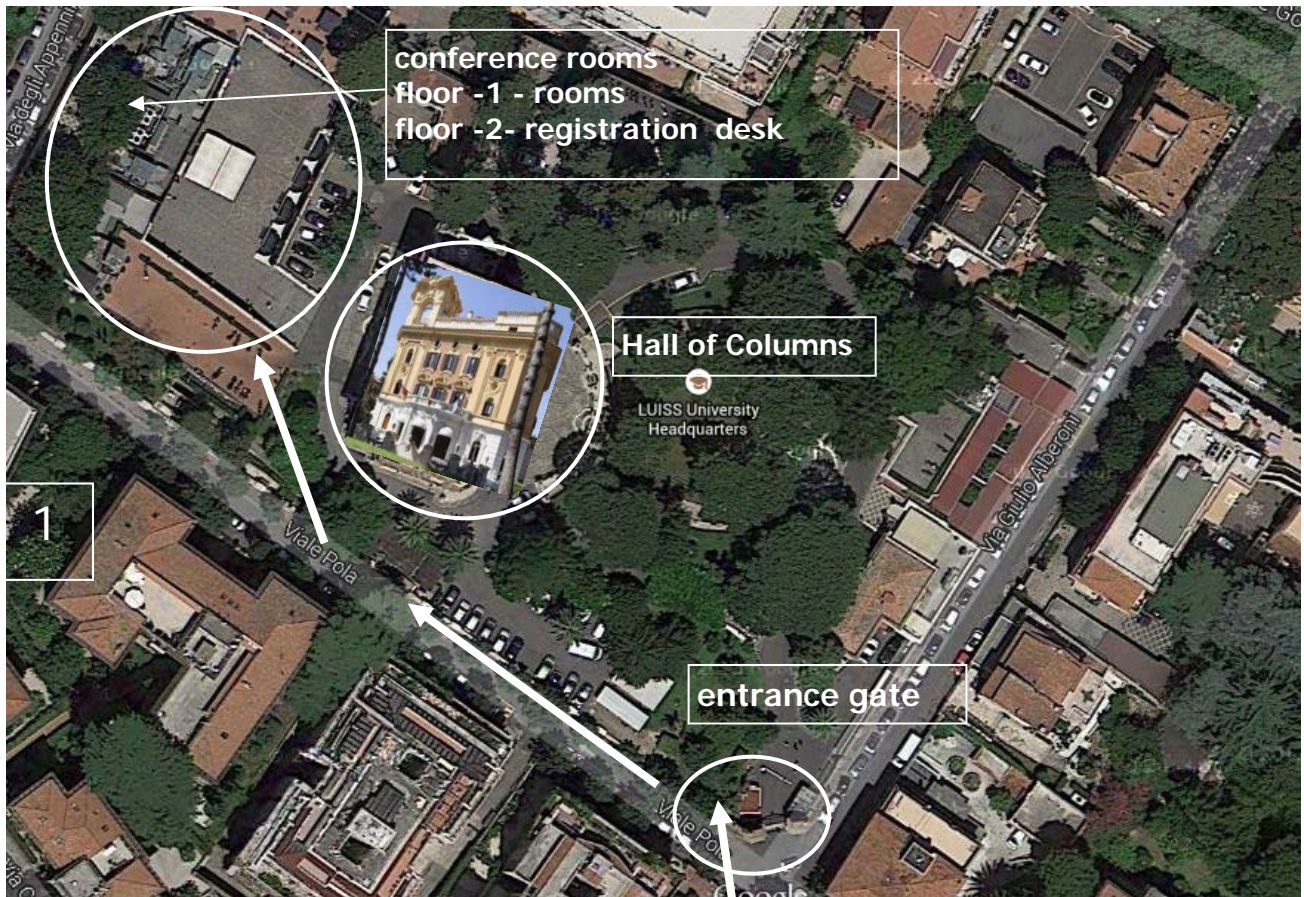
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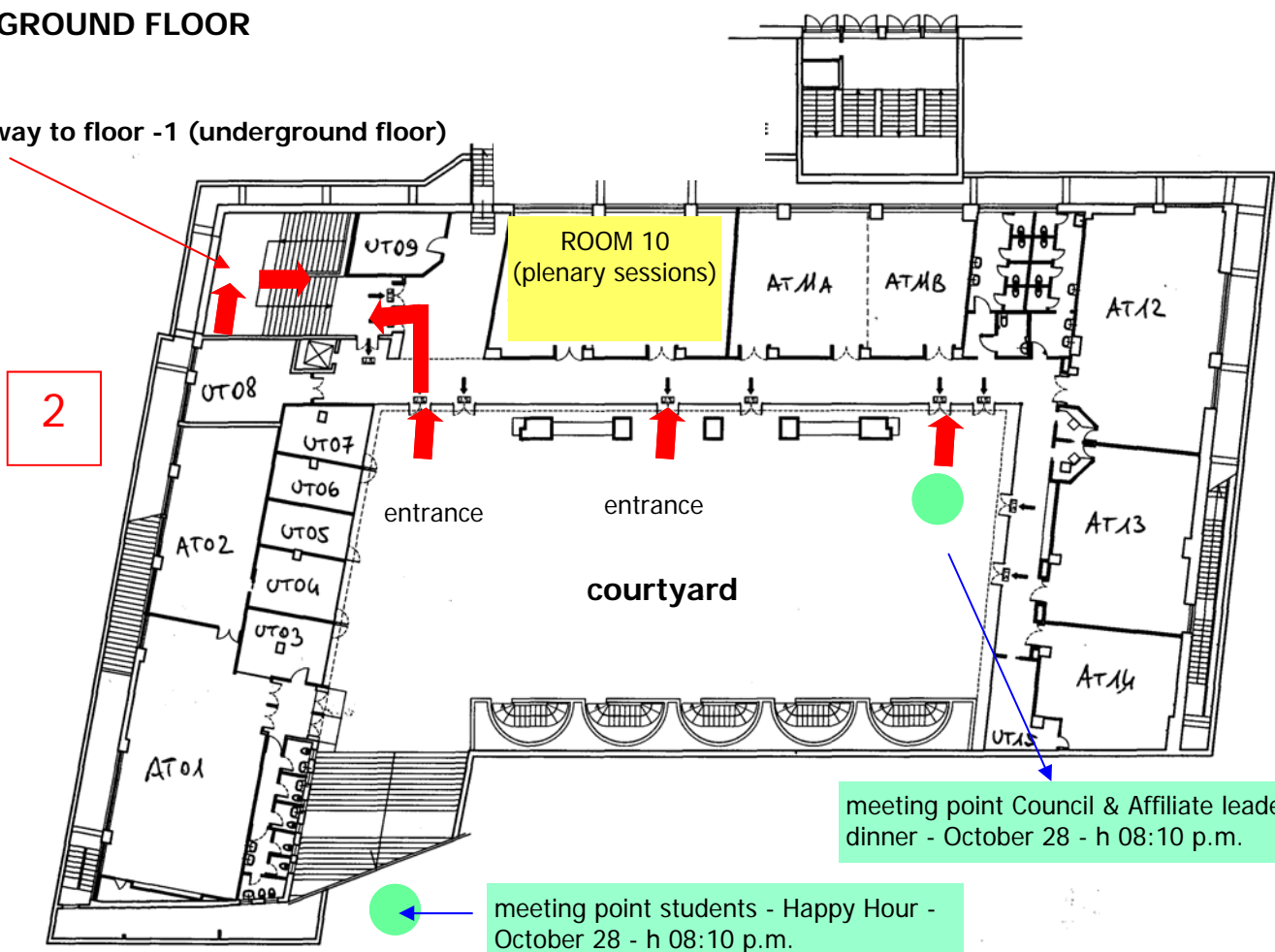
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LUISS University - Conference Venue Map



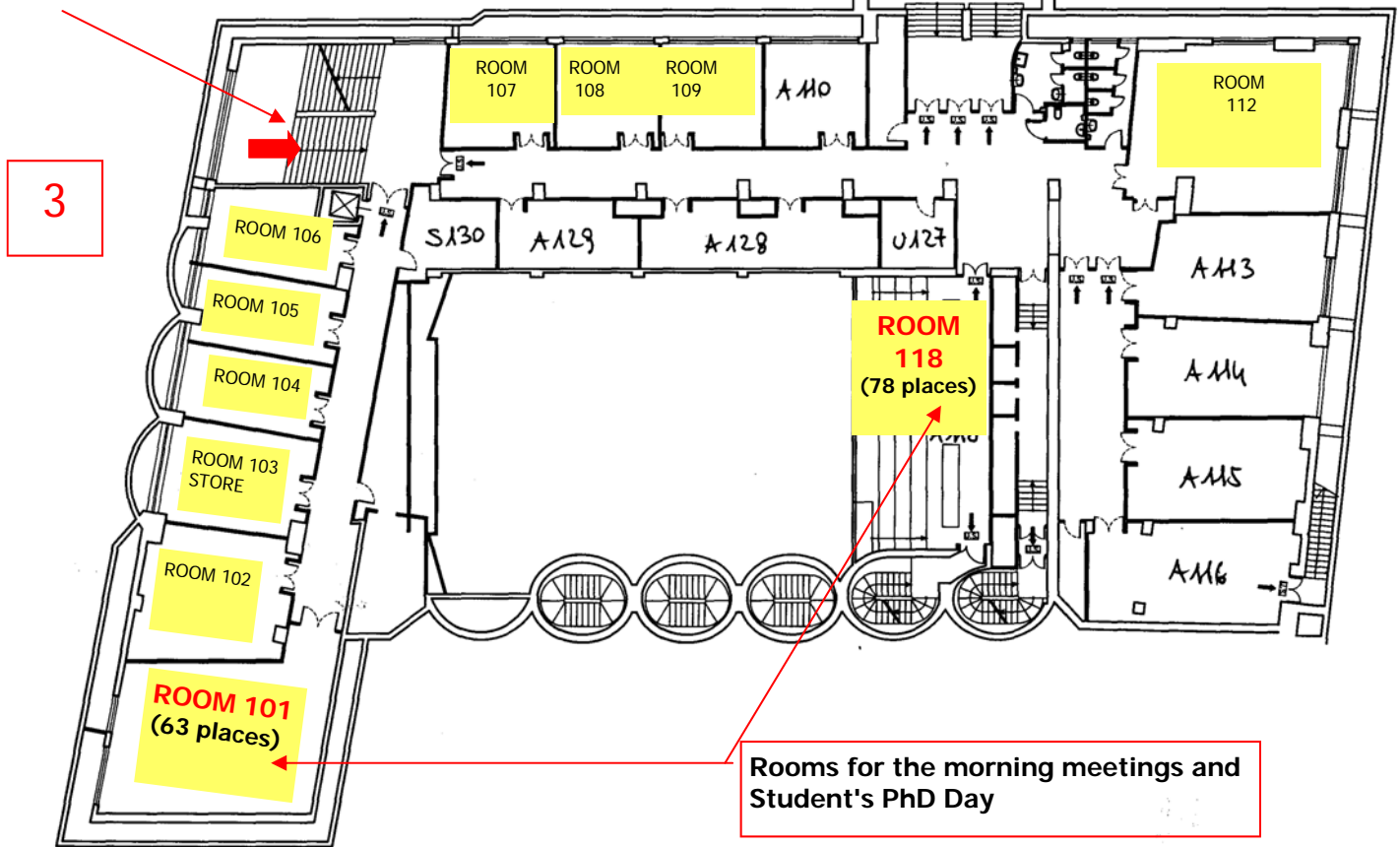
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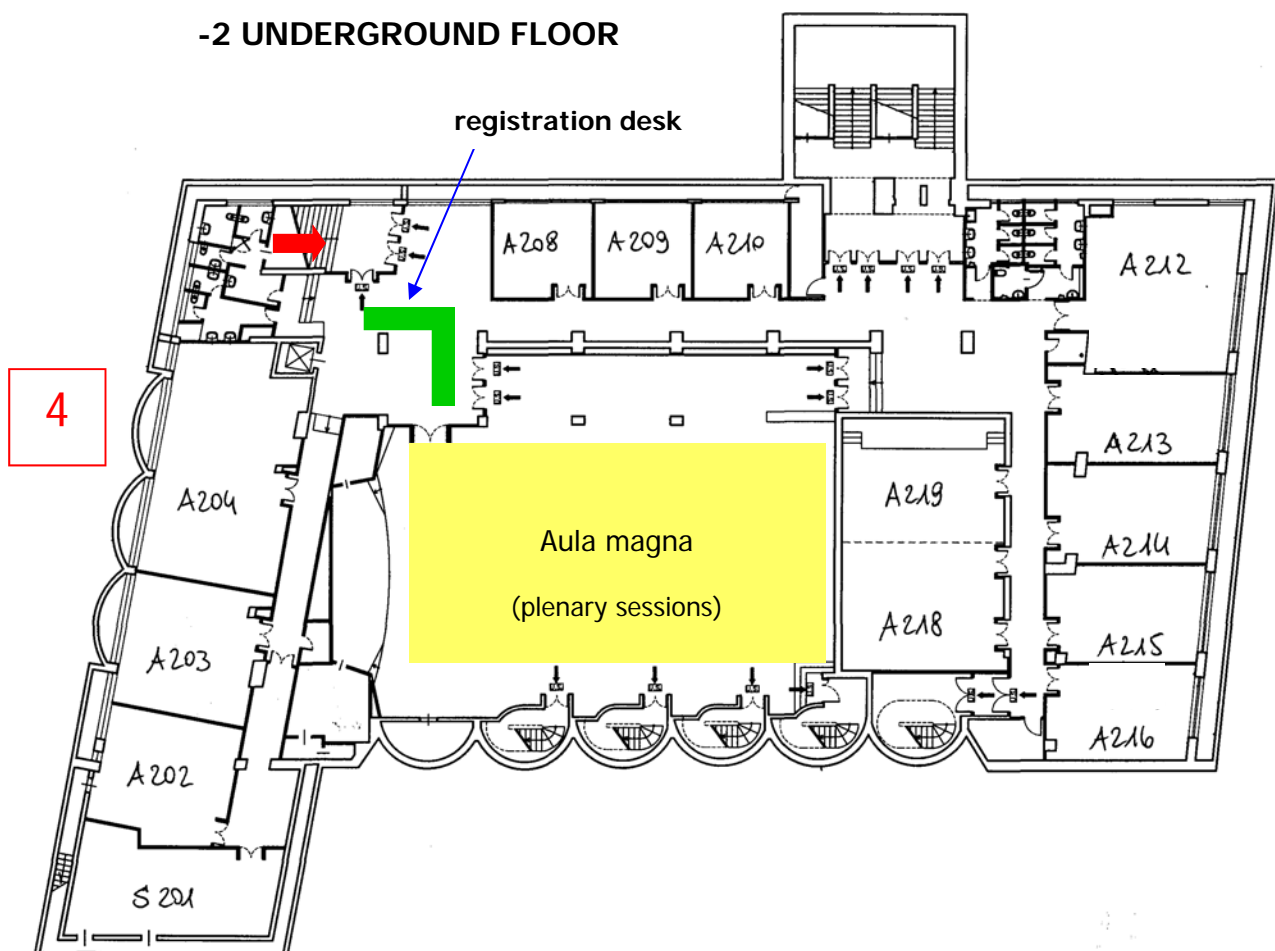
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-2 UNDERGROUND FLOOR

registration desk



Conference Programme

Tuesday, October 28

- 14.00-18.00 **Registration** (LUISS University - Viale Pola 12)
 12.15-17.00 IAEE/YEES PhD-students Day (LUISS University - Room 118)
 17.00-18.00 IAEE European Affiliate Leaders Meeting (LUISS University - Room 101)
 18.00-20.00 **Welcome Reception** (LUISS University courtyard - Viale Pola 12)
 20.30-22.00 **Student Happy Hour** ("Negresco" Bar – Via Bisagno, 6 - Piazza Istria)
 20.30-22.00 IAEE Affiliate Leaders and Council Dinner (by invitation)

Wednesday, October 29

- 08.00 – 17.00 **Registration**
 08.00 – 09.00 Students breakfast meeting (Room 101)
 Antalya Conference planning breakfast meeting (Room 118)
- 09.30 – 10.30 **Opening Plenary Session** (Aula Magna)
Chair: Carlo Andrea Bollino, President AIEE
Welcome address
Omowumi Iledare, IAEE President
Carlo Andrea Bollino, AIEE President
Massimo Egidi, Rector LUISS University
Gurkan Kumbaroglu, IAEE Vice President for Conferences
- 10.30 – 11.00 *Coffee Break*
- 11.00 – 12.30 **Dual Plenary Sessions**
- Energy challenge in the industrial sectors** (Aula Magna)
Chair: Chicco Testa, President Assoelettrica, Italy
Invited speakers:
Linda Ducharme, Director, Europe/Russia/Caspian, Gas & Power Marketing ExxonMobil, UK
Aldo Chiarini, CEO, President Energy Europe – Italy and Greece GDF SUEZ Energia Italia, Italy
Alessandro Garrone, Executive Vice President ERG, Italy
Roberto Poti, Executive Vice President Edison, Italy
Chicco Testa, President Assoelettrica, Italy
- Environmental Challenges in Europe** (Room 10)
Chair: Silvia Pariente-David, Ex-Sr Energy Specialist, World Bank, USA
Invited speakers:
Carlo Carraro, President Ca' Foscari University of Venice, Italy
David Newbery, Director of Energy Policy Research Group, Emeritus Professor at University of Cambridge, UK
Martin Graf, Executive Director, Member of the Board, Energie-Control, Austria
- 12.30 – 14.00 *Lunch and Poster Session*
- 14.00 – 15.30 **Concurrent Sessions**
- 01 Oil Market** (Room 112), *Chair: Akinbolaji Iwayemi*
02 IAEE Roma Best Paper Award Session (Room 118), *Chair: Gurkan Kumbaroglu*
03 Policy mix impacts on RES innovation- Special Session on GRETCHEN (Room 105),
Chair: Barbara Breitschopf
04 Flexibility and uncertainty: the role of wind (Room 107), *Chair: Hamilcar Knops*
05 Energy Efficiency: element for a low carbon economy (Room 108), *Chair: Lars Bergman*
06 Fuel Economy in Transport (Room 101), *Chair: Ignacio Contin-Pilart*
07 Electricity Market: coupling and price signals (Room 102), *Chair: Joachim Bertsch*
08 Understanding the challenge of climate change (Room 104), *Chair: Natalia Caldés Gomez*
09 Energy poverty I (Room 106), *Chair: Ute Dubois*
10 Energy Demand: impact on the market (Room 109), *Chair: Marian Klobasa*

15.30 – 17.00 Concurrent Sessions

- 11 Oil and Gas Company** (Room 112), *Chair: Terje Sørenes*
- 12 Capacity mechanisms in the electricity market** (Room 118), *Chair: Georg Erdmann*
- 13 RES support in Germany** (Room 105), *Chair: Hermann-Josef Wagner*
- 14 Integration of wind in the national system: case histories** (Room 107), *Chair: Peter Mc Gregor*
- 15 Energy performance in the residential sector** (Room 108), *Chair: Massimo Filippini*
- 16 EU transport policy to reduce CO₂ emissions** (Room 101), *Chair: Reinhard Madlener*
- 17 Electricity market: regulation** (Room 102), *Chair: Alessandro Rubino*
- 18 Policies to reduce GHG emissions** (Room 104), *Chair: Roberto Del Ciello*
- 19 Nuclear and geothermal energy** (Room 106), *Chair: Ruth Shortall*
- 20 The rebound effects** (Room 109), *Chair: Joachim Schleich*

17.10 8 busses will accompany the participants to the Awards Ceremony and the Gala Dinner
MEETING POINT: LUISS Courtyard - in front of the entrance for the conference venue
 The participants in groups of 50 persons will be accompanied to Viale Gorizia where the busses will pick them up for Piazza del Campidoglio - **BUS TICKET IS REQUIRED** (included in the conference kit)
 No bus transfer is organized after the event, the return is free.

18.00 – 19.30 IAAE Awards Ceremony (Protomoteca Hall - Piazza del Campidoglio)

Welcome address:

Marta Leonori, Councillor for Commerce and Industry Policy of the Municipality of Rome.

Federica Guidi, Italian Minister of Economic Development

Guido Fabiani, Deputy Mayor for Economic Development and Production Activities of the Lazio Region

The Awards:

IAEE Journalism Award
 Energy Journal Best Paper Award
 Student Best Paper Award
 Working Paper Award
 Poster Session Award



20.00 – 22.30 Gala Dinner – “Terrazza Caffarelli” - Piazza del Campidoglio (invitation ticket is required)

Thursday, October 30

08.00 – 18.00 Registration

08.00 – 09.00 IAAE Council Breakfast (by invitation) (Room 118)

09.00 – 10.30 Dual Plenary Sessions

Strategies for the future of the energy industry (Aula Magna)

Chair: Cesare Pozzi, LUISS University, Italy

Invited speakers:

Carlo Malacarne, President SNAM, Italy

Salvatore Pinto, Chairman & CEO Axpo, Italy

Alessandro Gilotti, President of Unione Petrolifera (The Italian Association of Oil Companies), Italy

Alberto De Paoli, Head of Strategic Planning Enel, Italy

Europe Roadmap to 2050 (Room “10”)

Chair: Andrea Ricci, ISES Italia, Italy

Invited speakers:

Adonis Yatchew, Editor-in-Chief of The Energy Journal, University of Toronto, Canada

Georg Erdmann, Professor for Energy Systems, Institute for Energy Technology, Berlin University of Technology, Germany

Richard Tol, Professor of Economics; Director of Research and Knowledge Exchange, University of Sussex, UK

10.30 – 11.00 Coffee Break

11.00 – 12.50 Concurrent Sessions

- 21 Understanding hydrocarbon price and market** (Room 112), *Chair: Vittorio D'Ermo*
- 22 Electric Capacity Markets** (Room 104), *Chair: Hamilcar Knops*
- 23 Re-thinking the market structure: RES effects I** (Room 105), *Chair: Silvia Pariente David*
- 24 Wind: subsidy effects** (Room 107), *Chair: Klaus Stocker*
- 25 Investment in energy efficiency** (Room 101), *Chair: Nadia Ameli*
- 26 An overview on CHP** (Room 102), *Chair: Arash Farnoosh*
- 27 Electricity Market: the wholesale market** (Room 106), *Chair: Olvar Bergland*
- 28 Looking at climate challenges: the future of energy system** (Room 108), *Chair: Valentin Bertsch*
- 29 Link between oil and economy: general aspects** (Room 118), *Chair: Rebeca Jimenez Rodriguez*
- 30 Energy Storage: general aspects and technology** (Room 109), *Chair: Wolf Peter Schill*

12.50 – 14.00 Lunch

14.00 – 15.30 Dual Plenary Sessions

Energy geopolitics and market developments (shale gas & LNG) (Aula Magna)

Chair: Kostas Andriosopoulos, Director of Research Centre for Energy Management, ESCP Europe, UK; Vice-Chairman, Greek Natural Gas Utility (DEPA)

Invited speakers:

Kostas Andriosopoulos, *Director of Research Centre for Energy Management, ESCP Europe, UK; Vice-Chair, Greek Natural Gas Utility (DEPA)*

Efgan Nifti, *Strategy and Policy Coordinator of the Caspian Strategy Institute, Turkey*

Nicola Pedde, *Director of the Institute for Global Studies, Italy*

Stefano Silvestri, *Past President of the Institute for International Studies, member of the AIAD Council, Italy*

14.00 – 15.30 Regulation of energy markets (Room "10")

Chair: Pippo Ranci, Catholic University of Milan, Italy

Invited speakers:

Alberto Biancardi, *Commissioner of the Italian Electricity and Gas Regulatory Authority, Italy*

Peter Bach, *President at European Council for an Energy Efficient Economy (ECEEE), Chief adviser at Danish Energy Authority, Denmark*

Luigi De Francisci, *Regulatory, Commercial and Grid Planning Director Terna, Italy*

Jean-Michel Glachant, *Director of the Florence School of Regulation and Holder of the Loyola de Palacio Chair at the European University Institute, Italy*

15.30 – 16.00 Coffee Break

16.00 – 17.30 Concurrent Sessions

- 31 Energy poverty II** (Room 109), *Chair: François Briens*
- 32 Evolution of utilities: general aspects** (Room 108), *Chair: Filiz Karaosmanoglu*
- 33 Re-thinking the market structure: RES effects I** (Room 107), *Chair: Ulrike Lehr*
- 34 Electricity transmission: congestion management** (Room 105), *Chair: Silas Harbo*
- 35 Energy Performance of Buildings** (Room 104), *Chair: Lukas Kranzl*
- 36 Electric & Hybrid Vehicles** (Room 102), *Chair: Ugo Farinelli*
- 37 The integration of RES in the electricity market** (Room 112), *Chair: Reinhard Haas*
- 38 Ensuring a low carbon electricity system** (Room 101), *Chair: Jean-Michel Glachant*
- 39 Reflection on the economic framework** (Room 118), *Chair: Stefania Proietti*
- 40 Energy Storage: an opportunity for the market** (Room 106), *Chair: Albert Hiels*

20.00 – 22.30 Conference Dinner - Luiss - The Hall of Columns (Viale Pola 12)



Friday, October 31

08.00 – 09.00 Energy Journal & EEEP Editor Meeting (by invitation) (Room 101)

09.00 – 10.30 Concurrent Sessions

- 41 **Geopolitics of natural gas** (Room 112), *Chair: Mine Yucel*
- 42 **The future of energy utilities** (Room 104), *Chair: Francesco Marghella*
- 43 **RES Support policy: general aspects** (Room 118), *Chair: Ilhan Or*
- 44 **Grid regulation and current context** (Room 105), *Chair: Vittorio De Martino*
- 45 **Energy demand in the residential sector** (Room 109), *Chair: Jacopo Torriti*
- 46 **Reflection on climate policy: carbon taxation** (Room 107), *Chair: Don Bredin*
- 47 **Reflection on electricity price** (Room 101), *Chair: Carlo Andrea Bollino*
- 48 **Towards a low carbon economy** (Room 106), *Chair: Heimo Burbaumer*
- 49 **The future of economy framework** (Room 102), *Chair: Louis Gaetan Giraudet*
- 50 **Ensuring the flexibility of the grid** (Room 108), *Chair: Torjus Folsland Bolkesjo*

10.30 – 11.00 *Coffee Break*

11.00 – 12.50 Concurrent Sessions

- 51 **Understanding the gas market** (Room 112), *Chair: Alberto Pincherle*
- 52 **Consideration on investment for utilities** (Room 104), *Chair: Niklas Poier*
- 53 **An overview on RES support policy experience I** (Room 105), *Chair: Kristin Linnerud*
- 54 **Energy supply and security** (Room 118), *Chair: Carlo Di Primio*
- 55 **Bioenergy: helping the climate constraints** (Room 102), *Chair: Robert Lundmark*
- 56 **The European carbon market** (Room 106), *Chair: Vanessa Zorilla*
- 57 **Influence of customers in the electricity market** (Room 101), *Chair: Vittorio De Martino*
- 58 **Climate policy: mitigation & adaptation** (Room 108), *Chair: Sara Proença*
- 59 **The impacts of RES on the economy** (Room 107), *Chair: Laura Castellucci*
- 60 **Network investment and regulation** (Room 109), *Chair: Jessica Thomsen*

12.50 – 13.30 *Light Lunch*

13.30 – 15.00 Concurrent Sessions

- 61 **In depth view of gas market** (Room 112), *Chair: Chris Cuijpers*
- 62 **Investment Risks in Power Sector** (Room 101), *Chair: Carlo Lucheroni*
- 63 **An overview on RES support policy experience II** (Room 105), *Chair: Fehmi Gorkem Uctug*
- 64 **Energy security in Europe** (Room 118), *Chair: Pippo Ranci*
- 65 **Bioenergy for sustainable system** (Room 102), *Chair: Alberto Pincherle*
- 66 **Measures and policies to limit GHG emissions: general aspects** (Room 104), *Chair: Ernesto Cassetta*
- 67 **Consumer behaviour** (Room 106), *Chair: Ole Kutzschbauch*
- 68 **Demand side and energy efficiency: some studies** (Room 108), *Chair: Clément Morlat*
- 69 **Sectoral approach of industry to energy efficiency** (Room 107), *Chair: Dario Di Santo*
- 70 **Smart grids and markets I** (Room 109), *Chair: Federico Santi*

15.00 – 15.30 *Coffee break*

15.30 – 17.00 Concurrent Sessions

- 71 **CCS: opportunity for the future** (Room 112), *Chair: Marc Vielle*
- 72 **Elements that influence the energy investment utilities investments** (Room 118), *Chair: Rolf Golombek*
- 73 **Developments of Photovoltaic** (Room 105), *Chair: Manfred Weissenbacher*
- 74 **Urbanisation and RES** (Room 101), *Chair: Afonso Henriques Moreira Santos*
- 75 **Energy from biomass** (Room 102), *Chair: Cristina De La Rua Lope*
- 76 **Studies on CO₂ emissions** (Room 104), *Chair: Ugo Farinelli*
- 77 **Public Attitude** (Room 106), *Chair: Ilham Or*
- 78 **Energy in the future: some consideration** (Room 108), *Chair: Carlo Di Primio*
- 79 **Energy costs: implications and threats for industry** (Room 107), *Chair: Katharina Grave*
- 80 **Smart grids and markets II** (Room 109), *Chair: Federico Santi*

17.00 – 18.00 Closing Session (Aula Magna)

Chair: Chair: Gurkan Kumbaroglu, IAEE Vice President for Conferences

Invited speakers:

Laura Cozzi, Deputy Head, Directorate for Global Energy Economics IEA, France

Lars Bergman, Professor Stockholm School of Economics, Past President of IAEE, Sweden

European Commission Representative

Concurrent Sessions

Wednesday, October 29

Concurrent Sessions 14:00 - 15:30h

1 Oil market (Room 112)

Chair: Akinbolaji Iwayemi, *University of Ibadan, Nigeria*

TESTING THE INTERNATIONAL CRUDE OIL MARKET INTEGRATION WITH STRUCTURAL BREAKS

Presenter: Kentaka Aruga, *Ishikawa Prefectural University, Japan*

OIL PRICE SHOCKS AND THE EFFECT ON THE PRICE OF OTHER COMMODITIES

Presenter: Frank Asche, *University of Stavanger, Norway*

Co-Author: Roy Endré Dahl

CHINA'S OMNIPRESENCE IN THE GLOBAL OIL MARKET

Presenter: Mamdouh Salameh, *World Bank, USA*

A MARKOV-SWITCHING APPROACH TO MODELING THE ASYMMETRIC PRICE TRANSMISSION: AN APPLICATION FOR THE SPANISH FUEL MARKET

Presenter: José María Martín Moreno, *Universidad de Vigo and Rede, Spain*

Co-Authors: Rafaela Pérez, Baltasar Manzano and Jesús Rúa

FUEL SUBSIDIES, OIL MARKETS AND THE GLOBAL ECONOMY

Presenter: Mine Yucel, *Federal Reserve Bank of Dallas, USA*

Co-Authors: Michael Plante and Nathan Balke

2 IAEE Roma Best Paper Award Session (Room 118)

Chair: Gurkan Kumbaroglu, *IAEE Vice President for Conferences*

SELF GENERATION AND PAYMENT FOR SERVICE RELIABILITY IN NIGERIA

Presenter: Musiliu O. Oseni, *Eprg, University of Cambridge, UK*

THE INTERACTION OF A HIGH RENEWABLE ENERGY/LOW CARBON POWER SYSTEM WITH THE GAS SYSTEM THROUGH POWER TO GAS

Presenter: Jeroen Vandewalle, *KU Leuven Energy Institute, Belgium*

Co-Authors: Kenneth Bruninck and William D'haeseleer

IMPROVING THE INTEGRATION OF RENEWABLES IN CONTINUOUS INTRADAY MARKETS FOR ELECTRICITY

Presenter: Alexander Von Selasinsky, *Technische Universität Dresden, Germany*

INTERNALITY LOSSES CAN OUTWEIGH EXTERNALITY GAINS

Presenter: Anshuman Sahoo, *Stanford University, USA*

Co-Author: Nik Sawe

3 Policy mix impacts on RES innovation – Special Session on GRETCHEN (Room 105)

Chair: Barbara Breitschopf, *Fraunhofer ISI, Germany*

ANALYSING THE CONSISTENCY OF THE POLICY MIX FOR RENEWABLE ENERGY TECHNOLOGIES ON THE MACRO-LEVEL

Presenter: Kirsten S. Wiebe, *Gesellschaft für Wirtschaftliche*

Strukturforschung mbH & UNU-MERIT, Germany

Co-Author: Christian Lutz

THE IMPACT OF THE POLICY MIX FOR RENEWABLE POWER GENERATION TECHNOLOGIES ON INVENTION: A PATENT ANALYSIS FOR GERMANY

Presenter: Paul Boedeker, *Fraunhofer ISI and University of Sussex, Germany*

Co-Author: Karoline Rogge

IS POLICY MIX CONSISTENCY A NECESSARY BUT NOT SUFFICIENT CONDITION FOR TECHNOLOGICAL CHANGE IN RENEWABLE POWER GENERATION TECHNOLOGIES?

Presenter: Barbara Breitschopf, *Fraunhofer ISI, Germany*

STRUCTURAL SIMILARITY AND DEPENDENCY OF RESEARCH NETWORKS IN THE GERMAN PV INDUSTRY – DOES THE COMPREHENSIVENESS OF THE POLICY MIX MATTER?

Presenter: Johannes Herrmann, *Friedrich Schiller University Jena, Germany*

Co-Author: Stefan Töpfer

4 Flexibility and uncertainty: the role of wind (Room 107)

Chair: Hamilcar Knops, *Delft University of Technology, Netherlands*

VALUE OF FLEXIBILITY FOR BALANCING WIND POWER GENERATION

Presenter: Ozge Ozdemir, *Energy Research Center of The Netherlands, The Netherlands*

Co-Authors: Marit Van Hout and Paul Koutstaal

MITIGATION OF WIND FARM OUTPUT VARIABILITY VIA GEOGRAPHIC DISPERSION AND TURBINE DIVERSIFICATION: A MEAN-VARIANCE ECONOMIC MODEL

Presenter: Akiner Tüzüner, *Istanbul Kemerburgaz University, Turkey*

Co-Authors: Fikret Korhan Turan and Selçuk Gören

THE VALUE OF BETTER WIND INFORMATION

Presenter: Michail Chronopoulos, *CENSES Research Center, Norwegian School of Economics, Norway*

Co-Author: Gunnar S. Eskeland

A TEMPORALLY AND SPATIALLY EXPLICIT FRAMEWORK FOR ANALYSING LONG-TERM DECARBONISATION STRATEGIES, CASE STUDY FOR WIND ENERGY IN THE UK

Presenter: Marianne Zeyringer, *UCL Energy Institute, UK*

Co-Authors: Hannah Daly, Birgit Fais, Ed Sharp and Neil Strachan

"POWER-TO-VALUE": CONVERTING EXCESS WIND POWER INTO VALUABLE PRODUCTS OR PROCESSES

Presenter: Hamilcar Knops, *Delft University of Technology, The Netherlands*

Co-Authors: Anish Patil and Rob Stikkelman

5 Energy Efficiency: element for a low carbon economy (Room 108)

Chair: Lars Bergman, *Stockholm School of Economics, Sweden*

INCENTIVES OF COMMERCIAL BANKS TO FINANCE ENERGY EFFICIENCY

Presenter: Anne Schopp, *German Institute for Economic Research (DIW Berlin), Germany*

A NEW ITALIAN POLICY FOR ENERGY-INTENSIVE USERS: A WHITE CERTIFICATES "BONUS" SCHEME

Presenter: Alberto G. Pincherle, *AIEE, Italy*

Co-Author: Francesca Bonfà

ADAPTATION TO CLIMATE CHANGE AND US RESIDENTIAL ENERGY USE – DOES ADAPTATION REDUCE GREENHOUSE GAS EMISSIONS?

Presenter: Francois Cohen, *Gantham Research Institute on Climate Change and the Environment London School of Economics and Political Sciences, UK*

Co-Author: Matthieu Glachant and Magnus Soderberg

ADOPTION OF ENERGY TECHNOLOGIES IN RESIDENTIAL BUILDINGS AND THE ROLE OF CONSUMER CHARACTERISTICS

Presenter: Samdrukh Dharshing, *University of St.Gallen, Switzerland*

6 Fuel Economy in Transport (Room 101)

Chair: Ignacio Contin-Pilart, *Universidad Pública de Navarra, Spain*

THE COMBINED TRANSPORTATION GHG REDUCTION STRATEGIES

Presenter: Han-Pang Su, *Taiwan Research Institute, Taiwan*

Co-Authors: Chin-Wen Yang, Chung-Huang Huang and Hui-Chen Chien

WILLINGNESS TO PAY FOR FUEL ECONOMY IN THE SWISS CAR MARKET

Presenter: Sylvain Weber, *University of Neuchâtel, Switzerland*

Co-Authors: Mehdi Farsi and Arnaud Blaser

A REGIONAL DEMAND FORECASTING STUDY FOR TRANSPORTATION FUELS IN TURKEY

Presenter: Özlem Atalay, *Bogazici University, Turkey*

Co-Author: Gürkan Kumbaroglu

MODE CHOICES OF TRANSPORT TO WORK IN SWITZERLAND

Presenter: Vishal Chandr Jaunty, *Lulea University of Technology, Sweden*

Co-Author: Jan Oliver Imhof

SELLER DENSITY AND RETAIL PRICES: EMPIRICAL EVIDENCE FROM THE SPANISH AUTOMOTIVE FUEL MARKET

Presenter: Ignacio Contin-Pilart, *Universidad Pública de Navarra, Spain*

Co-Authors: Pablo Arocena and Alejandro Bello

7 Electricity Market: coupling and price signals (Room 102)

Chair: Joachim Bertsch, *Institute of Energy Economics at the University of Cologne, Germany*

NEGATIVE ELECTRICITY MARKET PRICES IN CENTRAL-WESTERN EUROPE

Presenter: Kristof De Vos, *KU Leuven-Energy Ville, Belgium*

TWO PRICE ZONES IN THE GERMAN ELECTRICITY MARKET – DISTRIBUTIONAL EFFECTS OF REGIONAL PRICE SIGNALS

Presenter: Jonas Egerer, *DIW Berlin and TU Berlin, Germany*
Co-Authors: Jens Weibezahn and Hauke Hermann

MARKET COUPLING BETWEEN ELECTRICITY MARKETS: THEORY AND EMPIRICAL EVIDENCE FOR THE ITALIAN-SLOVENIAN INTERCONNECTION

Presenter: Lucia Visconti Parisio, *DEMS- University of Milan Bicocca, Italy*
Co-Author: Matteo Pelagatti

THE UP- AND DOWNSIDE OF HIDING INFORMATION – ZONAL VS NODAL PRICING IN ELECTRICITY MARKETS

Presenter: Joachim Bertsch, *Institute of Energy Economics at the University of Cologne, Germany*

8 Understanding the challenge of climate change (Room 104)

Chair: Natalia Caldés Gomez, *CIEMAT, Spain*

UNDERSTANDING THE EVOLUTION OF GLOBAL ENERGY USE

Presenter: Zsuzsanna Csereklyei, *Vienna University of Economics and Business, Austria*

Co-Author: David. I. Stern

THE EFFECT OF LIMITED RENEWABLE RESOURCES ON THE ELECTRICITY GENERATION IN A LOW-CARBON EUROPE

Presenter: Pablo Ruiz Castello, *Institute For Energy And Transport, The Netherlands*

Co-Authors: Sofia Simoes, Wouter Nijs, Alessandra Sgobbi and Christian Thiel

MODELLING MACROECONOMIC IMPACTS OF CARBON CONSTRAINED ENERGY SYSTEM USING IRISH-TIMES MSA

Presenter: Maurizio Gargiulo, *E4SMA s.r.l., Italy*
Co-Authors: James Glynn and Brian O'Gallachóir

MACROECONOMIC IMPACTS OF REGIONAL CLIMATE CHANGE ADAPTATION STRATEGIES

Presenter: Robert Beestermöller, *IER, University of Stuttgart, Germany*
Co-Author: Ulrich Fahl

WHAT ARE THE COSTS AND BENEFITS ASSOCIATED TO RES DEPLOYMENT IN SPAIN? – EVIDENCE FOR THE PERIOD 2005-2010

Presenter: Natalia Caldés Gomez, *CIEMAT, Spain*
Co-Authors: Cristina de la Rúa Lope, Helena Cabal, Yolanda Lechón, Elena López Bernabè, Marta Santamaría and Inés López Dóriga

9 Energy poverty I (Room 106)

Chair: Ute Dubois, *ISG Business School, France*

ENERGY ACCESS: FEEDING OF ISOLATED AREAS WITH NO LOCAL ENERGY RESOURCES

Presenter: Alessandro Clerici, *CESI SpA, Italy*
Co-Author: Antonio Ardito

HOUSEHOLDS FACING CONSTRAINTS. FUEL POVERTY PUT INTO CONTEXT

Presenter: Helena Meier, *Institute of Energy Economics at the University of Cologne, Germany*
Co-Author: Ute Dubois

ENERGY POVERTY IN THE EUROPEAN UNION: TEMPORAL AND SPATIAL PATTERNS

Presenter: Sergio Tirado-Herrero, *University of Manchester, UK*
Co-Authors: Saska Petrova and Stefan Bouzarovski

“CONSUMERS VULNERABILITY” CHARACTERIZATION: A METHODOLOGY APPROACH OF ENERGY POVERTY IN EUROPE

Presenter: Sabina Scarpellini, *CIRCE, University of Zaragoza, Spain*
Co-Authors: Miguel Marco-Fondevila, Inés Suarez-Perales and Alfonso Aranda-Usón

ENERGY CONSUMPTION AND POVERTY REDUCTION IN AFRICA

Presenter: Ute Dubois, *ISG Business School, France*

10 Energy Demand: impact on the market (Room 109)

Chair: Marian Klobasa, *Fraunhofer ISI, Germany*

REAL-TIME PRICE ELASTICITY OF ELECTRICITY DEMAND IN WHOLESALE MARKETS

Presenter: Andreas Knaut, *Institute of Energy Economics at the University of Cologne, Germany*
Co-Author: Simon Paulus

INFORMATION FEEDBACK EFFECTS IN RETAIL ELECTRICITY MARKETS

Presenter: Rimvydas Baltaduonis, *Gettysburg College, USA*
Co-Author: Julie Weisz

TEMPERATURE EFFECTS ON FIRMS' ELECTRICITY DEMAND: AN ANALYSIS OF SECTORIAL DIFFERENCES IN SPAIN

Presenter: Julian Moral-Carcedo, *Universidad Autonoma de Madrid, Spain*
Co-Author: Julian Perez Garcia

ANALYSING DEMAND SIDE MANAGEMENT IN ENERGY SYSTEM MODELS

Presenter: Martin Steurer, *IER, University of Stuttgart, Germany*
Co-Authors: Thomas Haasz, Ulrich Fahl and Alfred Voß

PEAK DEMAND AND TIME-OF-USE PRICING IN A FIELD STUDY OF RESIDENTIAL ELECTRICITY DEMAND IN GERMANY

Presenter: Marian Klobasa, *Fraunhofer ISI, Germany*
Co-Author: Joachim Schleich

Concurrent Sessions 15:30 – 17:00h

11 Oil and gas company (Room 112)

Chair: Terje Sørenes, *Norwegian Petroleum Directorate, Norway*

ESTIMATING FLUCTUATIONS IN OIL AND GAS INVESTMENTS

Presenter: Roy Endre Dahl, *University of Stavanger, Norway*
Co-Author: Petter Osmundsen

RIG SERVICES AND TAXATION

Presenter: Petter Osmundsen, *University of Stavanger, Norway*

BUSINESS MODEL INNOVATION IN THE OIL & GAS INDUSTRY

Presenter: Veronika Bauer, *OMV AG, Austria*
Co-Authors: Wolfgang Sachsenhofer, Sebastian Schröder and Nina Hampf

VERTICAL INTEGRATION AND VALUATION OF INTERNATIONAL OIL COMPANIES

Presenter: Bård Misund, *University of Stavanger, Norway*
Co-Authors: Petter Osmundsen and Marius Sikveland

ECONOMIC ANALYSIS OF UNDISCOVERED PETROLEUM RESOURCES IN THE NORWEGIAN ARCTIC: A COMBINED MONTE CARLO AND SCENARIO APPROACH

Presenter: Terje Sørenes, *Norwegian Petroleum Directorate, Norway*
Co-Authors: Benvenutta Henriksen and Mari Kvaløy

12 Capacity mechanisms in the electricity market (Room 118)

Chair: Georg Erdmann, *Technical University of Berlin, Germany*

ASSESSING DYNAMIC EFFECTS OF CAPACITY REMUNERATION MECHANISMS ON GENERATION INVESTMENT: COMPARISON BETWEEN STRATEGIC RESERVE MECHANISM AND CAPACITY MARKET

Presenter: Nicolas Hary, *Microeconomix – Mines ParisTech, France*
Co-Authors: Vincent Rious and Marcelo Saguan

MECHANISMS FOR GENERATING CAPACITY EXPANSION AND POWER MARKET STRUCTURES: RUSSIAN CASE STUDY

Presenter: Sergey Podkovalnikov, *Melentiev Energy Systems Institute of Siberian Branch of the Russian Academy of Sciences, Russia*
Co-Authors: Oleg Khamisov and Konstantin Semenov

HOW DO CAPACITY MARKETS AFFECT DEMAND FLEXIBILITY: WELFARE EFFECTS OF DYNAMIC CAPACITY PRICING IN THE PRESENCE OF HIGH SHARES OF FLUCTUATING RENEWABLE RESOURCES

Presenter: Christian Gambardella, *Potsdam Institute for Climate Impact Research (PIK), Germany*
Co-Authors: Michael Pahle and Wolf-Peter Schill

AN EFFICIENT ASSESSMENT OF CAPACITY MECHANISMS IN ELECTRICITY MARKET

Presenter: Hamid Aghaie, *AIT Austrian Institute of Technology, Austria*
Co-Author: Reinhard Haas

13 RES support in Germany (Room 105)

Chair: Hermann-Josef Wagner, *Ruhr-Universität Bochum, Lehrstuhl Energiesysteme und Energiewirtschaft, Germany*

CHANGED RISK PREMIUMS AND EQUITY DEBT REQUIREMENTS DUE TO DIFFERENT RES-E POLICY INSTRUMENTS FOR MARKET INTEGRATION OF RENEWABLE ENERGIES IN GERMANY

Presenter: Matthias Reeg, *German Aerospace Center, Institute of Technical Thermodynamics, System Analysis and Technology Assessment, Germany*
Co-Author: Mohamed Mamdouh Elkadragy

LONG-TERM MODELLING OF POWER-TO-GAS CAPACITY DEVELOPMENTS AND OPERATION IN THE GERMAN POWER SYSTEM

Presenter: Tobias Heffels, *Karlsruhe Institute of Technology (KIT), Germany*

Co-Authors: Russell McKenna and Wolf Fichtner

COST ESTIMATION OF EXISTING GERMAN RENEWABLE ENERGY INSTALLATIONS IN THE CURRENT SUPPORT MECHANISM TILL 2030

Presenter: Sebastian Kreuz, *Brandenburg Technical University Cottbus-Senftenberg, Germany*

Co-Authors: Felix Müsgens and Ralf Wissen

RENEWABLES FOR ELECTRICITY – EXPERIENCES IN GERMANY

Presenter: Hermann-Josef Wagner, *Ruhr-Universität Bochum, Lehrstuhl Energiesysteme und Energiewirtschaft, Germany*

14 Integration of wind in the national system: case histories (Room 107)

Chair: Peter Mc Gregor, *University of Strathclyde, UK*

INTEGRATION OF OFFSHORE WIND ENERGY INTO THE GRID SYSTEM IN GERMANY- MODELING OF A MARKET ORIENTED PROVISION

Presenter: Yassin Bouyraaman, *University of Paderborn, Germany*

Co-Authors: Jörg Bendfeld and Stefan Krauter

INTEGRATION OF WIND POWER INTO THE DANISH POWER SYSTEM

Presenter: Viktor József Racz, *University of Southern Denmark*

Co-Authors: Niels Vestergaard and Priyadarshini Yadav

QUANTIFYING THE IMPACT OF WIND POWER GENERATION IN DAY-AHEAD MARKET: THE CASE OF DENMARK

Presenter: Yuanjing Li, *University of Paris Ouest, France*

Co-Author: Julian Inchauspe

THE PROBABILITY OF LONG PHASES OF VERY HIGH AND LOW WIND POWER FEED-IN AND RESIDUAL LOAD

Presenter: Patrick Ploetz, *Fraunhofer ISI Germany*

Co-Author: Julia Michaelis

THE ECONOMIC AND ENVIRONMENTAL IMPACT OF THE UK'S OFFSHORE WIND ENERGY SECTOR

Presenter: Peter Mc Gregor, *University of Strathclyde, UK*

Co-Authors: Patrizio Lecca, J. Kim Swales and Marie Tamba

15 Energy performance in the residential sector (Room 108)

Chair: Massimo Filippini, *ETH Zurich and University of Lugano, Switzerland*

ECONOMIC INITIATIVES FOR INTEGRATION OF RENEWABLE ENERGY SOURCES INTO THE HOUSEHOLDS

Presenter: Dalius Tarvydas, *Lithuania Energy Institute, Lithuania*

Co-Authors: Valentinas Klevas and Viktorija Bobinaite

SHORT-TERM ELECTRICITY CONSUMPTION IN NORWEGIAN HOUSEHOLDS – DRIVERS AND PROFILES

Presenter: Erik Tromborg, *Norwegian University of Life Sciences (NMBU), Norway*

Co-Author: Anna Kipping

ENVIRONMENTAL IMPACTS OF THE FRENCH FINAL CONSUMPTION

Presenter: Gael Callonnec, *ADEME, France*

Co-Authors: Frédéric Gilbert and Eric Vidalenc

AN ANALYSIS OF HOUSEHOLD ENERGY CONSUMPTION IN TAIWAN: EVIDENCE FROM QUANTILE REGRESSION

Presenter: Wen-hsiu Huang, *Ling Tung University, Taiwan*

Co-Author: Ming-Che Chao

UNDERLYING ENERGY EFFICIENCY IN THE US RESIDENTIAL SECTOR AND POTENTIAL CO₂ SAVINGS

Presenter: Massimo Filippini, *ETH Zurich and University of Lugano, Switzerland*

Co-Author: Anna Alberini

16 EU transport policy to reduce CO₂ emissions (Room 101)

Chair: Reinhard Madlener, *RWTH Aachen University, Germany*

MEASURING THE IMPACT OF EXISTING ENVIRONMENTAL REGULATIONS AND FISCAL LEGISLATIONS ON THE EUROPEAN ROAD TRANSPORT DEMAND: A DYNAMIC PANEL DATA ECONOMETRIC ANALYSIS

Presenter: Benoît Cheze, *IFPEN, France*

Co-Author: Pascal Gastineau

THE ROLE OF THE EU CAR CO₂ REGULATION TO ACHIEVE LOWER CO₂ EMISSIONS FROM TRANSPORT BY 2030

Presenter: Christian Thiel, *Institute for Energy and Transport - JRC, The Netherlands*

Co-Authors: Wouter Nijs, Sofia Simoes, Johannes Schmidt, Arnold Van Zyl and Erwin Schmid

FROM FUEL TAXATION TO EFFICIENCY STANDARDS: A WRONG TURN IN EUROPEAN CLIMATE PROTECTION?

Presenter: Manuel Frondel, *RWI Essen, Germany*

Co-Author: Colin Vance

WILLINGNESS-TO-PAY FOR ALTERNATIVE FUEL VEHICLE CHARACTERISTICS: A STATED CHOICE STUDY FOR GERMANY

Presenter: Reinhard Madlener, *RWTH Aachen University, Germany*

Co-Author: André Hackbarth

17 Electricity market: regulation (Room 102)

Chair: Alessandro Rubino, *RES4MED and Bari University, Italy*

RELIABILITY OPTION CONTRACTS: THE EFFECT OF THE EXPLICIT PENALTY ON THE MERIT ORDER OF THE AUCTION

Presenter: Paolo Mastropietro, *Institute for Research in Technology (IIT), Universidad Pontificia Comillas, Spain*

Co-Authors: Pablo Rodilla and Carlos Battle

EXPLANATORY FACTORS OF EXTREME PRICING DAYS ON THE HUNGARIAN POWER EXCHANGE (HUPX) DAY-AHEAD MARKET

Presenter: Barnabás Máté Derekas, *Budapest University of Technology and Economics, Hungary*

TIME RECURRENCE STRUCTURES OF ELECTRICITY MARKETS: THE CASE OF UK

Presenter: Alessandro Rubino, *RES4MED and Bari University, Italy*

Co-Author: Angelo Facchini

18 Policies to reduce GHG emissions (Room 104)

Chair: Roberto Del Ciello, *ENEA, Italy*

TRADE IN CARBON AND THE EFFECTIVENESS OF CARBON TARIFFS

Presenter: Jan Schneider, *University of Oldenburg, Germany*

Co-Authors: Christoph Bonringer and Emmanuel Asane -Otoo

CARBON FOOTPRINT AND THE DRIVERS OF CO₂ EMISSIONS IN AFRICA

Presenter: Emmanuel Asane-Otoo, *University of Oldenburg, Germany*

POLICY INSTRUMENTS AND MARKET INTEGRATION OF RENEWABLES – AN AGENT-BASED MODEL ANALYSIS

Presenter: Kristina Nienhaus, *German Aerospace Center, Institute of Engineering Thermodynamics, System Analysis and Technology Assessment, Germany*

Co-Authors: Marc Deissenroth and Matthias Reeg

CARBON PRICING AND DISTRIBUTIONAL EFFECTS ON FIRMS: A METHODOLOGICAL SURVEY

Presenter: Rossella Bardazzi, *University of Florence, Italy*

Co-Author: Maria Grazia Paziienza

DYNAMIC I/O AND NAMEA MATRICES: A TOOL TO ASSESS THE OVERALL EFFECTS OF EUROPEAN PROGRAMMES

Presenter: Roberto Del Ciello, *ENEA, Italy*

Co-Authors: Cecilia Camporeale, Maria Velardi, Giovanni Galli and Biagio Quattrocchi

19 Nuclear and geothermal energy (Room 106)

Chair: Ruth Shortall, *University of Iceland, Iceland*

THE ROLE OF NUCLEAR POWER IN SUSTAINABLE LOW-CARBON ELECTRICITY SYSTEMS

Presenter: Erik Laes, *University of Antwerp, Belgium*

Co-Author: Aviel Verbruggen

THE NUCLEAR POWER CONTROVERSY AND FURTHER RECOMMENDATIONS IN TAIWAN

Presenter: Meng-Feng Zeng, *Institute of Nuclear Energy Research (INER), Taiwan*

Co-Authors: King-Ming Wang, Fu-Kuang Ko and Jong-Shun Chen

CREATING A FRAMEWORK FOR ASSESSING THE SUSTAINABILITY OF GEOTHERMAL ENERGY DEVELOPMENTS

Presenter: Ruth Shortall, *University of Iceland, Iceland*

Co-Authors: Brynhildur Davidsdottir and Gudni Axelson

20 The rebound effects (Room 109)

Chair: Joachim Schleich, *Grenoble Ecole de Management, France*

ENERGY EFFICIENCY SAVING, REBOUND EFFECTS AND THE IMPACT OF ENERGY POLICY INSTRUMENTS: EVIDENCE FROM EU COUNTRIES

Presenter: Morakinyo O. Adetutu, *Loughborough University, UK*

Co-Authors: Anthony Glass and Thomas G. Weyman-Jones

IS THERE A REBOUND EFFECT IN GREEN TAXATION ON TRANSPORTATION? EVIDENCE FROM A NATURAL EXPERIMENT IN ISRAEL

Presenter: Aviv Steren, *Ben-Gurion University of the Negev, Israel*

Co-Authors: Ofir D. Rubin and Stav Rosenzweig

ENERGY EFFICIENCY AND THE REBOUND: ESTIMATING INCOME AND SUBSTITUTION EFFECTS

Presenter: Mona Chitnis, *University of Surrey, UK*
Co-Authors: Steve Sorrell and Angela Druckman

SMART METERS, EFFICIENCY GAINS AND ECONOMY-WIDE REBOUND EFFECTS

Presenter: Patrizio Lecca, *University of Strathclyde, UK*
Co-Authors: Marie Tamba, Peter McGregor and Kim Swales

A BRIGHTER FUTURE? QUANTIFYING THE REBOUND EFFECT IN ENERGY EFFICIENT LIGHTING

Presenter: Joachim Schleich, *Grenoble Ecole de Management, France*
Co-Authors: Brad Mills and Elisabeth Dütschke

Thursday October 30

Concurrent Sessions 11:00 – 12:50h

21 Understanding hydrocarbon price and market (Room 112)

Chair: Vittorio D'Ermo, *AIEE, Italy*

PETROLEUM TAXATION AND INVESTMENT BEHAVIOUR

Presenter: Magne Emhjellen, *Petoro AS, Norway*
Co-Authors: Petter Osmundsen, Thore Johnsen, Alexander Kemp and Christian Riis

COMPARATIVE STATICS FOR REAL OPTIONS ON OIL: WHAT STYLIZED FACTS TO USE?

Presenter: Diderik Lund, *University of Oslo, Norway*
Co-Author: Ragnar Nymoen

UNDERSTANDING THE INTERACTIONS BETWEEN GLOBAL AND REGIONAL SEASONALITY OF CRUDE OIL CONSUMPTION

Presenter: Jun Li, *Curtin University of Technology, Australia*
Co-Author: Julian Inchauspe

THE OIL-GROWTH NEXUS IN OIL PRODUCERS: MACRO PANEL EVIDENCE

Presenter: Alcino Pinto Couto, *NECE and University of Beira Interior, Portugal*
Co-Authors: António Cardoso Marques and José Alberto Fuinhas

BANNING NON-CONVENTIONAL OIL EXTRACTION: WOULD A UNILATERAL MOVE OF THE EU REALLY WORK?

Presenter: Samuel Carrara, *Fondazione Eni Enrico Mattei and Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC), Italy*
Co-Author: Emanuele Massetti

A CARBON KUZNETS CURVE WITH OIL PRICES: THE SPANISH CASE

Presenter: Manuel Cantavella Jorda, *Universitat Jaume I and Instituto de Economia Internacional, Spain*
Co-Author: Jacint Balaguer

22 Electric Capacity Markets (Room 104)

Chair: Hamilcar Knops, *Delft University of Technology, The Netherlands*

EQUILIBRIUM PRICING OF RESERVE POWER

Presenter: Lenja Niesen, *Universität Duisburg-Essen, Germany*
Co-Author: Christoph Weber

ECONOMICS FOR FLEXIBLE CONSUMERS IN BALANCING MARKETS

Presenter: Christine Brandstaett, *Fraunhofer IFAM, Germany*

TEN PROPOSITIONS ON ELECTRICITY MARKET DESIGN: ENERGY-ONLY VS. CAPACITY MARKETS

Presenter: Lion Hirth, *Vattenfall GmbH, Germany*
Co-Author: Falko Ueckerdt

OPPORTUNITY COST OF REACTIVE POWER PROVISION

Presenter: Fabian Hinz, *TU Dresden, Germany*
Co-Author: Dominik Möst

UNCERTAINTIES IN THE BALANCING MARKETS FOR ELECTRICITY - BARRIERS FOR RENEWABLE ENERGY SOURCES

Presenter: Michael Zipf, *TU Dresden, Germany*
Co-Author: Dominik Möst

OUTAGE ACCEPTANCE AND FEASIBILITY OF REDUCING RESERVE POWER CAPACITY IN JAPAN

Presenter: Makoto Tamura, *Institute for Global Change Adaptation Science, Ibaraki University, Japan*
Co-Authors: Abdur Rohman and Hisashi Kobayashi

23 Re-thinking the market structure: RES effects I (Room 105)

Chair: Silvia Pariente-David, Ex-Sr Energy Specialist, World Bank, USA

STRATEGIC BEHAVIOR OF ENERGY SUPPLIERS IN BALANCING MARKETS UNDER INCREASED RENEWABLE SUPPLY

Presenter: Dominik Schober, *ZEW (Center for European Economic Research), Germany*
Co-Author: Sven Heim

ANALYZING SCALE EFFECTS OF ENERGETIC AUTARKY WITH AN ECONOMIC CAPACITY AND DISPATCH OPTIMIZATION MODEL

Presenter: Russell Mc Kenna, *Karlsruhe Institute of Technology (KIT), Germany*

Co-Authors: Erik Merkel, Tobias Jäger and Wolf Fichtner

MODELING CONCEPT FOR RENEWABLE ENERGY EXPANSION AND INTERACTION IN EUROPE: THE CASE OF GERMANY AND GREECE

Presenter: Christoph Kost, *Fraunhofer ISE, Germany*
Co-Authors: Niklas Hartmann, Charlotte Senkpiel and Thomas Schlegl

BALANCING FORECAST ERRORS IN CONTINUOUS-TRADE INTRADAY MARKETS

Presenter: Ernesto Garnier, *RWTH Aachen University, Germany*
Co-Author: Reinhard Madlener

RISK AND RETURN UNDER RENEWABLE SUPPORT MECHANISMS – TOWARDS A COHERENT FRAMEWORK

Presenter: Christoph Weber, *University Duisburg-Essen, Germany*
Co-Author: Lena Kitzing

24 Wind: subsidy effects (Room 107)

Chair: Klaus Stocker, *Georg-Simon Ohm Institute of Technology, Germany*

THE INFLUENCE OF INDIVIDUAL WIND FEED-IN TIME SERIES ON ELECTRICITY SPOT MARKET PRICES AND THEIR EFFECT ON THE ECONOMIC EVALUATION OF STORAGE SYSTEMS

Presenter: Julia Michaelis, *Fraunhofer ISI, Germany*
Co-Authors: Patrick Plötz and Sebastian Müller

IN A WORLD WITHOUT SUPPORT SCHEMES: INVESTMENTS IN WIND POWER BY THE ENERGY-ONLY MARKET

Presenter: Marie Petitot, *Paris-Dauphine University, France*

WIND POWER DEPLOYMENT: THE ROLE OF PUBLIC PARTICIPATION IN DECISION-MAKING PROCESS

Presenter: Anahita Jami, *Ryerson University, Canada*
Co-Author: Philip Walsh

THE EFFECT OF FINANCIAL INCENTIVES IN PROMOTING WIND ENERGY IN TURKEY

Presenter: Yildiz Arkan, *Bahcesehir University, Turkey*
Co-Author: Sinan Asal

THE EFFECT OF RENEWABLE SUBSIDY SCHEMES AND MARKET DESIGN ON THE SPATIAL DISTRIBUTION OF WIND ENERGY INSTALLATION

Presenter: Anna Pechan, *University of Oldenburg, Germany*

FINANCIAL AND ECONOMIC JUSTIFICATION OF SUBSIDISED OFF-SHORE WIND PROJECTS: A CASE STUDY

Presenter: Klaus Stocker, *Georg-Simon Ohm Institute of Technology, Germany*

25 Investment in energy efficiency (Room 101)

Chair: Nadia Ameli, *OECD, France*

DETERMINANTS OF ENERGY-EFFICIENCY INVESTMENTS IN SLOVENIAN MANUFACTURING INDUSTRIES

Presenter: Nevenka Hrovatin, *University of Ljubljana, Slovenia*
Co-Authors: Nives Dolšak and Jelena Zorić

DO SOCIAL NORMS MATTER TO ENERGY SAVING BEHAVIOR? ENDOGENOUS SOCIAL AND CORRELATED EFFECTS

Presenter: Mari Sakudo, *Development Bank of Japan, Japan*
Co-Authors: Hajime Katayama and Toshi H. Arimura

MEASURING THE EFFICIENCY OF ENERGY-INTENSIVE INDUSTRIES ACROSS 23 EU COUNTRIES

Presenter: Georgia Makridou, *ESCP Europe Business School, France*
Co-Authors: Kostas Andriosopoulos, Michael Doumpos and Constantin Zopounidis

SMART CITY HARTBERG: SMART CITY DEVELOPMENT ON SMALL-TOWN SCALE

Presenter: Alois Kraussler, *4ward Energy Research GmbH, Austria*

DISTRIBUTION GRID MONITORING THROUGH PILOT INJECTION AND SUCCESSIVE INTERFERENCE CANCELLATION

Presenter: Surena Neshvad, *Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg, Luxembourg*

Co-Authors: Symeon Chatzinotas and Jürgen Sachau

BARRIERS TO HOUSEHOLDS INVESTMENT IN ENERGY EFFICIENCY AND RENEWABLES – EVIDENCE FROM THE OECD SURVEY ON HOUSEHOLD ENVIRONMENTAL BEHAVIOUR AND ATTITUDES

Presenter: Nadia Ameli, *OECD, France*

Co-Author: Nicola Brandt

26 An overview on CHP (Room 102)

Chair: Arash Farnoosh, *IFPEN – IFP School, France*

LONG-TERM INVESTMENT STRATEGIES FOR POWER AND HEAT GENERATION PORTFOLIOS WITH MINIMAL COSTS

Presenter: Nikolaus Rab, *Vienna University of Technology, Austria*

SWITCHING FROM FOSSIL FUEL TO RENEWABLES IN RESIDENTIAL HEATING SYSTEMS: AN EMPIRICAL STUDY OF HOMEOWNERS' DECISIONS IN GERMANY

Presenter: Carl Christian Michelsen, *RWTH Aachen University, Austria*

Co-Author: Reinhard Madlener

REACH A 20% CO₂-REDUCTION AT NO EXTRA COSTS WITH A COST-MINIMIZING INVESTMENT AND DISPATCH MODEL TO COVER THE COMBINED ELECTRICITY AND HEAT DEMAND FOR THE REGION OF VIENNA

Presenter: Richard Buechele, *Vienna University of Technology, Austria*

Co-Authors: Reinhard Haas and Michael Hartner

EVALUATING INVESTMENTS FOR EXISTING DISTRICT HEATING NETWORKS DEPENDING ON THE DEVELOPMENT OF BUILDINGS' HEATING DEMAND APPLYING ROBUST OPTIMIZATION

Presenter: Sara Fritz, *Vienna University of Technology, Austria*

ASSESSMENT OF LEVELIZED ECONOMICS OF FOSSIL-FUEL-BASED POLYGENERATION ENERGY SYSTEMS

Presenter: Karim Farhat, *Stanford University, USA*

Co-Author: Stefan Reichelstein

TECHNO-ECONOMIC MODELLING AND ANALYSIS OF CO-GENERATION UNITS IN FRANCE

Presenter: Arash Farnoosh, *IFPEN – IFP School, France*

Co-Author: Frédéric Lantz

27 Electricity Market: the wholesale market (Room 106)

Chair: Olvar Bergland, *Norwegian University of Life Sciences*

FORECASTING THE EU ELECTRICITY WHOLESALE PRICES: DO MULTIPLE TIME SERIES MODELS PERFORM BETTER?

Presenter: Marta Trabucchi, *University of Bergamo, Italy*

Co-Author: Michele Dalena

PRICE ELASTICITY OF DEMAND IN THE EUROPEAN WHOLESALE ELECTRICITY MARKET

Presenter: Niyaz Valitov, *Schumpeter School of Business and Economics, Germany*

Co-Authors: Sebastian Nielen, Werner Bönnte and Torben Engelmeyer

AN EMPIRICAL STUDY OF MARKET PERFORMANCE IN WHOLESALE ELECTRICITY MARKETS

Presenter: Koichiro Tezuka, *Nihon University, Japan*

Co-Authors: Masahiro Ishii and Motokazu Ishizaka

TRANSPARENCY AND BIDDING BEHAVIOR IN ELECTRICITY WHOLESALE MARKETS

Presenter: Olvar Bergland, *Norwegian University of Life Sciences*

Co-Author: Angelica Gianfreda

28 Looking at climate challenges: the future of energy systems (Room 108)

Chair: Valentin Bertsch, *Karlsruhe Institute of Technology (KIT), Institute for Industrial Production (IIP), Germany*

BENEFITS OF INCORPORATING NON-ENERGY AND NON-CO₂ PROCESSES INTO ENERGY SYSTEMS MODELS

Presenter: Paul Dodds, *University College London, UK*

Co-Authors: Hannah Daly and Birgit Fais

IMPACT OF THE OPTIMAL ENERGY MIX WITH RENEWABLE RISK ON INDUSTRIAL GREENING

Presenter: Chung-Huang Huang, *Taiwan Research Institute, Taiwan*

Co-Authors: Chin-Wen Yong, Chiung-Wen Cheng, Pei-Yun Chu, Chih-Kai Yang and Te-Chin Wang

ENERGY REFERENCE FORECAST AND ENERGY POLICY TARGETS FOR GERMANY

Presenter: Christian Lutz, *GWS mbH, Germany*

Co-Authors: Dietmar Lindenberger, Michael Schlesinger and Christian Tode

CONSTRUCTION OF HYBRID INPUT-OUTPUT TABLES FOR E3 CGE MODEL CALIBRATION AND CONSEQUENCES ON ENERGY POLICY ANALYSIS

Presenter: Gaelle Le Treut, *CIREN, France*

Co-Authors: Julien Lefevre, Frederic Ghersi and Emmanuel Combet

ASSESSING THE DISRUPTIVE POTENTIAL OF NEW TECHNOLOGIES IN THE EUROPEAN ENERGY MARKET

Presenter: Nina Hampl, *Vienna University of Economics and Business, Austria*

Co-Authors: Katharina Wittmann and Sebastian Schröer

PARTICIPATORY DECISION SUPPORT FOR POWER SYSTEMS PLANNING: EMPIRICAL FINDINGS FROM A CASE STUDY IN THE CONTEXT OF THE GERMAN ENERGY TRANSITION

Presenter: Valentin Bertsch, *Karlsruhe Institute of Technology (KIT), Institute for Industrial Production (IIP), Germany*

Co-Authors: Viktor Slednev and Wolf Fichtner

29 Link between oil and economy: general aspects (Room 118)

Chair: Rebeca Jimenez Rodriguez, *University of Salamanca, Spain*

OIL AND UNEMPLOYMENT IN A NEW-KEYNESIAN MODEL

Presenter: Veronica Acurio Vasconez, *Université Paris 1 Panthéon-Sorbonne, Paris School of Economics, France*

OIL AND DEBTS: ARE THEY SUBSTITUTES?

Presenter: Florent Mc Isaac, *Université Paris 1 Panthéon-Sorbonne, Paris School of Economics, France*

Co-Author: Gaël Giraud

MODELLING GLOBAL MACROECONOMIC IMPACTS OF A CARBON CONSTRAINED ENERGY SYSTEM USING ETSAPTAM MSA

Presenter: James Glynn, *University College Cork, Ireland*

Co-Authors: Maurizio Gargiulo and Brian O'Gallachóir

ENERGY EFFICIENCY CONVERGENCE AND OIL PRICE VOLATILITY: EVIDENCE FROM THE MEDITERRANEAN

Presenter: Konstantina Xarcha, *University of Athens, Greece*

FOSSIL FUEL SUBSIDIES AS A LOSE-LOSE: FISCAL AND ENVIRONMENTAL BURDENS IN TURKEY

Presenter: Sevil Acar, *Istanbul Kemerburgaz University, Turkey*

Co-Authors: Sarah Challe, Stamatios Christopoulos and Giovanna Christo

OIL PRICE SHOCKS AND SPAIN'S MACROECONOMIC DEVELOPMENTS

Presenter: Rebeca Jimenez Rodriguez, *University of Salamanca, Spain*

Co-Author: Marcelo Sánchez

30 Energy Storage: general aspects and technology (Room 109)

Chair: Wolf Peter Schill, *DIW Berlin, Germany*

REGULATORY BARRIERS TO ENERGY STORAGE TECHNOLOGIES

Presenter: Tom Brijs, *University of Leuven (KU Leuven), Belgium*

Co-Authors: Cedric De Jonghe and Ronnie Belmans

EXPLORING BARRIERS TO COMPANY ADOPTION OF LOAD SHIFT

Presenter: Mark Olsthoorn, *Grenoble Ecole de Management, France*

Co-Authors: Joachim Schleich and Marian Klobasa

ENHANCING COST-EFFICIENCY OF RESIDENTIAL BATTERY SYSTEMS (RBS) IN CONJUNCTION WITH PV, MICRO-CHP, AND BALANCING POWER PROVISION

Presenter: Anselm Eicke, *Technische Universität Berlin (TU Berlin), Germany*

Co-Authors: Heiko Birkholz, André Huschke and Markus Graebig

AN ANALYSIS ON CHANGES IN ECONOMICS OF SMART HOUSE USING PHOTOVOLTAIC CELL AND ELECTRICITY STORAGE SYSTEM

Presenter: Yoshiki Ogawa, *Toyo University, Japan*

LARGE-SCALE INTEGRATION OF FLUCTUATING RENEWABLES: THE ROLE OF STORAGE

Presenter: Wolf Peter Schill, *DIW Berlin, Germany*

Co-Author: Alexander Zerrahn

Concurrent Sessions 16:00 - 17:30h

31 Energy Poverty II (Room 109)

Chair: François Briens, *Center for Applied Mathematics, Ecole des Mines ParisTech, France*

A DYNAMIC APPROACH OF THE FUEL POVERTY PHENOMENON. EVIDENCE FROM THE FRENCH DATA OF THE EUROPEAN UNION OF STATISTICS OF INCOME AND LIVING CONDITIONS (EU-SILC)

Presenter: Elie Lacroix, *University Paris Dauphine, France*
Co-Author: Corinne Chaton

THEORETICAL ANALYSIS OF THE IMPACT OF ENERGY POVERTY ON VULNERABLE POPULATIONS' BEHAVIOR: THE CASE OF TWO DEVELOPED COUNTRIES: FRANCE AND THE UK

Presenter: Vanesha Guirdarlal, *University of Pau et des Pays de l'Adour, France*

INVESTIGATING THE DEGROWTH PARADIGM THROUGH PROSPECTIVE MODELING: THE CASE OF FRANCE

Presenter: François Briens, *Center for Applied Mathematics, Ecole des Mines ParisTech, France*
Co-Author: Nadia Maïzi

32 Evolution of utilities: general aspects (Room 108)

Chair: Filiz Karaosmanoglu, *Istanbul Technical University, Turkey*

QUANTITATIVE ANALYSIS OF GAS SUPPLY STRATEGIES FROM A GERMAN PLANT OPERATOR'S PERSPECTIVE

Presenter: Andreas Henke, *TU Dortmund, Germany*
Co-Author: Nadja Löper

THE ROLE OF INDEPENDENT REGULATION IN THE RELATIONSHIP OF POWER TARIFF AND ELECTION

Presenter: Sung Bong Cho, *Soongsil University, Republic of Korea*
Co-Authors: Changsuh Park and Bora Nam

INVESTMENT PLANNING AND OPTIMIZATION OF URBAN AND RURAL HYBRID ENERGY SYSTEMS

Presenter: Andreas Fleischhacker, *Vienna University of Technology, Austria*

INVESTOR-SPECIFIC COST OF CAPITAL AS EXPLANATORY FACTOR FOR HETEROGENEITY IN ENERGY INVESTMENT DECISIONS – A CONCEPTUAL MODEL

Presenter: Sarah Salm, *University of St. Gallen, Switzerland*
Co-Authors: Thorsten Helms and Rolf Wüstenhagen

GENERATION ADEQUACY OUTLOOK IN A BIPOLAR ELECTRICITY SYSTEM. ELECTRICITY SUPPLY SECURITY ASSESSMENT FOR BELGIUM UP TO 2050

Presenter: Danielle Devogelaer, *Federal Planning Bureau, Belgium*
Co-Author: Dominique Gusbin

33 Re-thinking the market structure: RES effects II (Room 107)

Chair: Ulrike Lehr, *Institute of Economic Structures Research (GWS), Germany*

AN ANALYSIS OF THE ALLOCATION AND COSTS OF RISK UNDER DIFFERENT RENEWABLE SUPPORT INSTRUMENTS

Presenter: Michael Pahle, *Potsdam Institute for Climate Impact Research (PIK), Germany*
Co-Authors: Oliver Tietjen and Philippe Quirion

THE ROLE OF CURTAILMENT IN DEALING WITH THE VARIABILITY OF RENEWABLES

Presenter: Erik Delarue, *University of Leuven, Belgium*

THE IMPORTANCE OF INTEGRATING THE VARIABILITY OF RENEWABLES IN LONG-TERM ENERGY PLANNING MODELS

Presenter: Kris Poncelet, *University of Leuven, Belgium*
Co-Authors: Erik Delarue, William D'haeseleer, Jan Duerinck and Dean Six

FLEXIBILITY IN COMPETITIVE ELECTRICITY MARKETS

Presenter: Christoph Brunner, *EnBW Energie Baden-Württemberg AG, Germany*

WHO BENEFITS FROM RENEWABLES? ECONOMIC IMPACTS OF RENEWABLE ENERGY ALONG THE VALUE CHAIN AND VALUE CREATION POLICIES

Presenter: Ulrike Lehr, *Institute of Economic Structures Research (GWS), Germany*
Co-Author: Barbara Breitschopf

34 Electricity transmission: congestion management (Room 105)

Chair: Silas Harbo, *Danish Energy Association, Denmark*

THE ROAD TO THE FIRST BEST – CONGESTION MANAGEMENT OF ELECTRICITY TRANSMISSION IN THE CWE REGION

Presenter: Lisa Just, *Institute of Energy Economics at the University of Cologne, Germany*
Co-Authors: Joachim Bertsch and Simeon Hagspiel

ANALYSIS OF THE GERMAN BORDER POWER TRANSMISSION LINES AND CONGESTION MANAGEMENT AS AN ELEMENT TOWARDS A SINGLE EUROPEAN ELECTRICITY MARKET

Presenter: Fernando Oster, *TU Berlin, Germany*

REFORM POTENTIALS FOR CONGESTION MANAGEMENT IN EUROPEAN ELECTRICITY NETWORKS

Presenter: Günter Knieps, *University of Freiburg, Germany*
Co-Author: Birgit Rosalowsky

FLECH MARKET DESIGN - A CLEARING HOUSE FOR CONGESTION MANAGEMENT

Presenter: Silas Harbo, *Danish Energy Association, Denmark*
Co-Authors: Peter Meibom and Lars Henrik Hansen

35 Energy Performance of Buildings (Room 104)

Chair: Lukas Kranzl, *Vienna University of Technology, Institute of Energy Systems and Electrical Drives, Austria*

A TRENDY DESIGN OR WISE BUSINESS SOLUTION? AN ANALYSIS OF LEED OFFICE BUILDINGS IN TOP U.S. CITIES

Presenter: Yongsheng Wang, *Washington and Jefferson College, USA*
Co-Author: Jordan Stanley

EXPLORING TRANSACTION COSTS IN PASSIVE HOUSE-ORIENTED RETROFITTING

Presenter: Bernadet Kiss, *International Institute for Industrial Environmental Economics (IIIEE) at Lund University, Sweden*
Co-Author: Luis Mundaca

ENERGY CONSUMPTION AND EFFICIENCY IN THE EU STOCK OF SHOPPING MALLS

Presenter: Raphael Bointner, *Vienna University of Technology, Institute of Energy Systems and Electric Drives, Austria*

Co-Author: Agne Toleikyte

WHAT ARE FAVOURABLE POLICIES TO INCREASE RES-H AND ENERGY EFFICIENCY IN THE EU BUILDING STOCK?

Presenter: Lukas Kranzl, *Vienna University of Technology, Institute of Energy Systems and Electrical Drives, Austria*
Co-Authors: Andreas Müller, Agne Toleikyte, Marcus Hummel and Clemens Rohde

36 Electric & Hybrid Vehicles (Room 102)

Chair: Ugo Farinelli, *AIEE, Italy*

MODEL BASED ANALYSIS OF A MASSIVE DEVELOPMENT OF ELECTRIC VEHICLE IN THE PARIS ILE DE FRANCE REGION

Presenter: Edi Assoumou, *CMA Mines ParisTech, France*
Co-Authors: Jérôme Houel and Jean-Paul Marmorat

INTERPLAY BETWEEN ELECTRICITY AND TRANSPORT SECTORS – INTEGRATING THE SWISS CAR FLEET AND ELECTRICITY SYSTEM

Presenter: Ramachandran Kannan, *Laboratory for Energy Systems Analysis, Paul Scherrer Institut, Switzerland*
Co-Author: Hal Turton

FUEL CELL VEHICLES ARE CLOSE TO COMMERCIALIZATION AND IT'S TIME TO THINK HYDROGEN FUEL CELL POWERTRAIN AS POWER PLANT. CONSIDERATION ABOUT GERMANY, UK AND ITALY IN EU CONTEXT

Presenter: Mario Valentino Romeri, *Private Consultant, Italy*

BATTERY VS HYBRIDS? FUTURE PERSPECTIVES OF ELECTRIC VEHICLES

Presenter: Amela Ajanovic, *Vienna University of Technology, Austria*

ABOUT BUSINESS MODEL SPECIFICATIONS OF A SMART CHARGING MANAGER TO INTEGRATE ELECTRIC VEHICLES INTO THE GERMAN ELECTRICITY MARKET

Presenter: Alex Ensslen, *Karlsruhe Institute of Technology (KIT), Germany*

Co-Authors: Philipp Ringler, Patrick Jochem, Dogan Keles and Wolf Fichtner

37 The integration of RES in the electricity market (Room 112)

Chair: Reinhard Haas, *Vienna University of Technology, Austria*

THE RENEWABLES INFLUENCE ON MARKET SPLITTING: THE IBERIAN SPOT ELECTRICITY MARKET

Presenter: Nuno Figueiredo, *University of Coimbra, Portugal*
Co-Authors: Patrícia Pereira da Silva and Pedro Cerqueira

TAIL RISK IN POWER PRICE MODELLING AND FORECASTING WITH RES

Presenter: Angelica Gianfreda, *London Business School, UK*
Co-Authors: Derek W. Bunn and Dipeng Chen

ECONOMIC CURTAILMENT OF RENEWABLE ENERGY SOURCES

Presenter: Arthur Henriot, European University Institute, Italy

PROBLEMS CONNECTED TO THE INTEGRATION OF NON PROGRAMMABLE RES INTO THE POWER SYSTEM: THE EU AND THE ITALIAN CASE

Presenter: Bruno Cova, CESI S.p.A., Italy

Co-Author: Alessandro Clerici

INTEGRATING LARGER SHARES OF INTERMITTENT RENEWABLES INTO THE ELECTRICITY SYSTEM: COMPETITIVE OR CENTRALLY PLANNED ?

Presenter: Reinhard Haas, Vienna University of Technology, Austria

Co-Author: Hans Auer

38 Ensuring a low carbon electricity system (Room 101)

Chair: Jean-Michel Glachant, *Director of the Florence School of Regulation and Holder of the Loyola de Palacio Chair at the European University Institute, Italy*

EVALUATION OF THE DEVELOPMENT OF NON-GHG EMISSIONS FROM THE EUROPEAN ELECTRICITY SECTOR

Presenter: Rupert Hartel, *Institute of Industrial Production, Karlsruhe Institute of Technology, Germany*

Co-Authors: Dogan Keles and Wolf Fichtner

COST-MINIMAL INVESTMENTS INTO GENERATION CAPACITIES IN EUROPE GIVEN A EUROPE-WIDE RENEWABLES POLICY

Presenter: Clemens Gerbaulet, *TU Berlin and DIW Berlin, Germany*

Co-Authors: Casimir Lorenz, Friedrich Kunz, Christian von Hirschhausen and Benjamin Reinhard

ANALYSIS FOR EXTENSIVE INTEGRATION OF VARIABLE RENEWABLES WITH DYNAMIC MULTIREGIONAL OPTIMAL POWER GENERATION MIX MODEL

Presenter: Ryoichi Komiyama, *The University of Tokyo, Japan*

Co-Author: Yasumasa Fujii

A TOP-DOWN SCENARIO QUANTIFICATION METHODOLOGY FOR ELECTRICITY HIGHWAYS AT 2050

Presenter: Thomas Anderski, *Amprion GmbH, Germany*

Co-Authors: Athanase Vaféas, Tiziana Pagano, Mihai Paun, Brahim Betraoui, Yvonne Surmann, Gerald Sanchis and Nathalie Grisey

INTEGRATING RENEWABLE ENERGY IN POWER SYSTEMS: CHALLENGES AND SOLUTIONS

Presenter: Vincent Krakowsky, *Mines ParisTech, CMA, France*

Co-Authors: Edi Assoumou, Nadia Maïzi and Vincent Mazauric

39 Reflection on the economic framework (Room 118)

Chair: Stefania Proietti, *Guglielmo Marconi University, Italy*

EURO-MEDITERRANEAN COOPERATION ON RENEWABLE ENERGY FINANCE

Presenter: Isabella Alloisio, *FEEM, CMCC and ICCG, Italy*

MODELING RESOURCE USE WITH ENDOGENOUS TIME PREFERENCE AND MINIMUM CONSUMPTION REQUIREMENT

Presenter: Akira Maeda, *University of Tokyo, Japan*

Co-Author: Makiko Nagaya

EFFECTS OF ENERGY PRICES ON ECONOMIC GROWTH

Presenter: Kwanruetai Boonyasana, *Rajamangala University of Technology Pranakorn (RMUTP), Thailand*

THE GREEN BANK AS CLIMATE FINANCIAL INSTRUMENT TO BUILD A GREEN LOW CARBON ECONOMY

Presenter: Stefania Proietti, *Guglielmo Marconi University, Italy*

Co-Authors: Carlo Andrea Bollino and Stefano Santocchia

40 Energy Storage: an opportunity for the market

(Room 106)

Chair: Albert Hiesl, *Vienna University of Technology, Austria*

THE ROLE FOR POWER-TO-GAS IN FUTURE ENERGY SYSTEMS: A MODEL-BASED ASSESSMENT FOR THE NETHERLANDS

Presenter: Jeroen De Joode, *Energy Research Centre of The Netherlands*

MACROECONOMIC EFFECTS OF THE ENERGY STORAGE SYSTEM POWER-TO-GAS

Presenter: Robert Tichler, *Energieinstitut an der Johannes Kepler Universität Linz, Austria*

VARIABLE RENEWABLE ENERGIES AND STORAGE DEVELOPMENT IN LONG-TERM ENERGY MODELING TOOLS

Presenter: Jacques Despres, *CEA – LITEN, Université Grenoble Alpes, France*

Co-Authors: Nouredine Hadjsaid, Patrick Criqui, Silvana Mima and Isabelle Noirot

PROSPECTS OF OPTIMIZED DISTRIBUTED GENERATION AND ELECTRIC VEHICLE CHARGING IN MICRO GRIDS

Presenter: Johannes Schaeuble, *Karlsruhe Institute of Technology (KIT), Germany*

Co-Authors: Patrick Jochem and Wolf Fichtner

ON THE AMBIGUOUS MARKET PROSPECTS OF STORAGES FOR PROMOTING ELECTRICITY GENERATION FROM INTERMITTENT RENEWABLES

Presenter: Albert Hiesl, *Vienna University of Technology, Austria*

Co-Authors: Amela Ajanovic and Reinhard Haas

Friday, October 31**Concurrent Sessions 09:00 - 10:30h****41 Geopolitics of natural gas (Room 112)**

Chair: Mine Yucel, *Federal Reserve Bank of Dallas, USA*

THE ROLE OF GAZPROM IN EUROPEAN NATURAL GAS SUPPLIES

Presenter: Christian von Hirschhausen, *TU Berlin and DIW Berlin, Germany*

Co-Authors: Hella Engerer, Franziska Holz, Claudia Kemfert and Philipp Richter

GAS PRICING SYSTEM IN ASIA PACIFIC : INFLUENCE OF USA AND EUROPE

Presenter: Jinseok Sung, *Gubkin Russian State University of Oil & Gas, Russia*

REGIONAL GAS MARKET INTEGRATION IN THE CHANGING GEOPOLITICAL LANDSCAPE

Presenter: Irina Mironova, *Energy Research Institute of the Russian Academy of Sciences, Russia*

TECHNICAL EFFICIENCY AMONG GAS PRODUCERS IN THE BARNETT SHALE PLAY

Presenter: Likeleli Seithheko, *Rice University, USA*

EUROPE, UKRAINE AND RUSSIAN GAS: COULD THE CRISIS IN UKRAINE THREATEN THE SECURITY OF EUROPE'S ENERGY SUPPLY?

Presenter: Jean-Pierre Favennec, *IFP School, France*

42 The future of energy utilities (Room 104)

Chair: Francesco Marghella, *University of Perugia, Italy*

RESTRUCTURING AND RELIABILITY IN THE ELECTRICITY INDUSTRY OF OECD COUNTRIES: INVESTIGATING CAUSAL RELATIONS BY ECONOMETRIC MODEL

Presenter: Haneey Ryu, *Seoul National University, South Korea*

Co-Authors: Pilseong Jang, Sergio Aldana and Yeonbae Kim

CHANGES OF THE ITALIAN ENERGY SYSTEM FROM 1990 TO 2014 WITH PARTICULAR REFERENCE TO THE INDUSTRIAL SECTOR: IMPLICATIONS FOR THE FUTURE

Presenter: Francesco Marghella, *University of Perugia, Italy*

Co-Authors: Vittorio D'Ermo and Nino Morgantini

DYNAMICS OF INDUSTRIAL CONSOLIDATION IN THE EU27 ELECTRICITY AND GAS INDUSTRY (2009-2014)

Presenter: Marc Petz, *University Carlos III of Madrid, Spain*

QUANTUM LEAP - WHY AND HOW ENERGY UTILITIES SERVICIZE THEIR BUSINESS MODELS

Presenter: Thorsten Helms, *Institute for Economy and the Environment, University of St. Gallen, Switzerland*

43 RES Support policy: general aspects (Room 118)

Chair: İlhan Or, *Bogazici University, Turkey*

POLITO-ECONOMIC ASPECTS OF RENEWABLE ENERGY: VOTING ON THE LEVEL OF RENEWABLE ENERGY SUPPORT

Presenter: Vladimir Udalov, *Schumpeter School of Business and Economics, University of Wuppertal, Germany*

A TWO STAGE ENERGY PLANNING MODEL INTEGRATING POWER EXPANSION AND REGIONAL ENERGY SYSTEMS FOR THE ASSESSMENT OF SOLAR AND CGS

Presenter: Shunsuke Mori, *Tokyo University of Science, Japan*

Co-Authors: Kazuhisa Kamegai and Yuya Makishita

ENERGY AND CHAOS: MODELLING ENERGY IN A DYNAMICS GROWTH MODEL WITH CHAOTIC BIFURCATION

Presenter: Gaël Giraud, *CNRS, Centre d'Economie de la Sorbonne, Paris School of Economics, Labex REFI, France*

EU CLIMATE AND ENERGY POLICY BEYOND 2020: ARE ADDITIONAL TARGETS AND INSTRUMENTS FOR RENEWABLES ECONOMICALLY REASONABLE?

Presenter: Paul Lehmann, *Helmholtz Centre for Environmental Research – UFZ, Germany*
Co-Authors: Jos Sijm, Erik Gawel, Unnada Chewpreecha, Jean-Francois Mercure, Hector Pollitt and Sebastian Strunz

44 Grid regulation and current context (Room 105)

Chair: Vittorio De Martino, *AIEE, Italy*

SMART GRID AND DEMAND RESPONSE: A GENERATORS-CENTERED APPROACH IN THE CURRENT EUROPEAN CONTEXT

Presenter: Claire Bergaentzlé, *CNRS, France*

NEW CROSS-BORDER BALANCING ARRANGEMENTS IN EUROPE: WHAT ARE THE EFFICIENCY GAINS AND WHO REAPS THEM?

Presenter: Claudio Casimir Lucas Lorenz, *Technical University Berlin and DIW Berlin, Germany*
Co-Author: Clemens Gerbaulet

INEFFICIENCIES OF GRID REGULATION - THE CASE OF BLACKOUTS IN ELECTRICITY GRIDS

Presenter: Simeon Hagspiel, *Institute of Energy Economics, University of Cologne, Germany*
Co-Author: Joachim Bertsch

THE IMPACT OF OPERATING RESERVES IN GENERATION EXPANSION PLANNING WITH HIGH SHARES OF RENEWABLE ENERGY SOURCES

Presenter: Arne Van Stiphout, *KU Leuven & EnergyVille, Belgium*
Co-Authors: Kris Poncelet, Kristof De Vos and Geert Deconinck

MODELING TRANSMISSION INVESTMENT UNDER DIFFERENT REGULATORY REGIMES

Presenter: Martti J. Van Blijswijk, *TenneT TSO B.V. & Delft University of Technology, The Netherlands*
Co-Author: Laurens J. de Vries

45 Energy demand in the residential sector (Room 109)

Chair: Jacopo Torriti, *School of Construction Management and Engineering, University of Reading, UK*

DETERMINANTS OF HOUSEHOLD ENERGY CONSUMPTION IN FRANCE: BEHAVIOR APPROACH

Presenter: Elena Stolyarova, *Mines ParisTech, France*
Co-Authors: Hélène Le Cadre, Dominique Osso, Benoit Allibe, Christophe Marchand and Nadia Maïzi

AN ANALYSIS OF UK HOUSEHOLDS' WILLINGNESS TO SHIFT ENERGY CONSUMPTION

Presenter: Musiliu O. Oseni, *University of Cambridge, UK*
Co-Authors: David M. Reiner and Michael G. Pollitt

RESIDENTIAL BOTTOM-UP LOAD MODELLING WITH PRICE ELASTICITY

Presenter: Marian Hayn, *Karlsruhe Institute of Technology (KIT), Institute for Industrial Production (IIP), Germany*
Co-Authors: Valentin Bertsch and Wolf Fichtner

NORMALIZING RESIDENTIAL AND COMMERCIAL ENERGY DEMAND FOR CLIMATIC CONDITIONS

Presenter: Tarek Atallah, *KAPSARC, Saudi Arabia*
Co-Authors: Alessandro Lanza and Silvio Gualdi

ASSESSING FLEXIBILITY IN RESIDENTIAL ELECTRICITY DEMAND: FINDINGS FROM THE ANALYSIS OF UK TIME USE DATA

Presenter: Jacopo Torriti, *School of Construction Management and Engineering, University of Reading, UK*
Co-Author: Richard Hanna

46 Reflection on climate policy: carbon taxation (Room 107)

Chair: Don Bredin, *University College Dublin, Ireland*

MARKET POWER RENTS AND CLIMATE CHANGE: A RATIONALE FOR EXPORT TAXES ON COAL?

Presenter: Roman Mendelevitch, *DIW Berlin, Germany*
Co-Authors: Frank Jotzo and Philipp M. Richter

THE IMPACT ASSESSMENT OF VARIOUS CARBON TAX RATE ON THE ECONOMY AND CO₂ EMISSION OF TAIWAN

Presenter: Chi-Yuan Liang, *Chung-Hua Institution for Economic Research, Taiwan*
Co-Author: Ruei-He Jheng

FOSTERING RENEWABLES AND RECYCLING A CARBON TAX: JOINT AGGREGATE AND INTERGENERATIONAL REDISTRIBUTIVE EFFECTS

Presenter: Frédéric Gonand, *University of Paris-Dauphine, France*

CARBON TAX, PENSIONS AND PUBLIC DEFICITS: THE HIDDEN COST OF THE COMPARTMENTALIZATION OF EXPERTISE

Presenter: Emmanuel Combet, *CIREN, France*
Co-Author: Jean Charles Hourcade

WHY IS SPOT CARBON SO CHEAP AND FUTURE CARBON SO DEAR? THE TERM STRUCTURE OF CARBON PRICES

Presenter: Don Bredin, *University College Dublin, Ireland*
Co-Author: John Parsons

47 Reflection on electricity price (Room 101)

Chair: Carlo Andrea Bollino, *University of Perugia and AIEE, Italy*

PEAK-LOAD PRICING WITH DIFFERENT TYPES OF DISPATCHABILITY

Presenter: Klaus Eisenack, *Carl von Ossietzky Universität Oldenburg, Germany*
Co-Author: Linda Neubauer

DYNAMIC ANALYSIS OF THE GERMAN DAY-AHEAD ELECTRICITY SPOT MARKET

Presenter: Marius Paschen, *Carl von Ossietzky Universität Oldenburg, Germany*

AN ANALYSIS ON PRICE FORMATION IN TURKISH ELECTRICITY MARKET

Presenter: Volkan Alacam, *Energy Market Regulatory Authority, Turkey*
Co-Author: Mustafa Gozen

OPTIMAL DESIGN FOR HOURLY ELECTRICITY PRICE IN THE ITALIAN MARKET. PRELIMINARY RESULTS

Presenter: Carlo Andrea Bollino, *University of Perugia and AIEE, Italy*
Co-Author: Simona Bigerna

48 Towards a low carbon economy (Room 106)

Chair: Heimo Bürbaumer, *Austrian Energy Agency, Austria*

LONG TERM SCENARIO FOR AN ENERGY TRANSITION IN THE FRENCH TRANSPORTATION SECTOR UNDER MULTIPLE POLICY OBJECTIVES

Presenter: Claire Nicolas, *IFP Energies Nouvelles, France*
Co-Authors: Frédérique Bouvart, Andréa Diaz, Daphné Lorne, Emmanuel Hache, Valérie Saint-Antonin and Stéphane Tchong-Ming

SMOOTH TRANSITION TO LOW CARBON WORLD WITH OPTIMAL POLICIES FOR NATURAL GAS AND RENEWABLE ENERGIES

Presenter: Yuri Yegorov, *University of Vienna, Austria*
Co-Author: Franz Wirl

ON THE LINK BETWEEN USING LOW CARBON FUELS AND ENERGY EFFICIENCY IMPROVEMENTS FOR ATTAINING GREENHOUSE GAS EMISSIONS REDUCTION GOALS

Presenter: Ofira Ayalon, *Samuel Neaman Institute, Technion and University of Haifa, Israel*
Co-Authors: Miriam Lev-On and Perry P. Lev-On

INVESTMENT IN LOW CARBON TECHNOLOGIES: ASSESSMENT OF EUROPEAN MIX EVOLUTION WITH WORLD MODEL DNE21+ COMBINED TO INVESTMENT PREFERENCE INDICATOR

Presenter: Bionka Shoai Tehrani, *Research Institute of Innovative Technology for the Earth (RITE), Japan*
Co-Authors: Keigo Akimoto and Fuminori Sano

COULD A REAL LEVEL-PLAYING FIELD IN MIDDLE EUROPEAN ELECTRICITY MARKETS BY A FULL INTERNALIZATION OF ENVIRONMENTAL COSTS TRIGGER THE REQUIRED ENERGY TRANSITION?

Presenter: Heimo Bürbaumer, *Austrian Energy Agency, Austria*
Co-Authors: Herbert Tretter, Martin Baumann, Gregor Thenius and Gunda Kirchner

49 The future of economy framework (Room 102)

Chair: Louis-Gaëtan Giraudet, *Ecole des Ponts ParisTech & CIREN, France*

OUTLOOK OF THE JAPANESE ECONOMY AND ENERGY SUPPLY-DEMAND STRUCTURE TOWARD 2030

Presenter: Sumio Hamagata, *Central Research Institute of Electric Power Industry, Japan*
Co-Authors: Yuko Hoshino and Yutaka Nagata

MEASURING IRREGULAR CYCLES IN ECONOMIC TIME SERIES

Presenter: Oliver Woll, *Centre for European Research (ZEW), Germany*
Co-Author: Dominik Schöber

ON THE GLOBAL ENERGY CONSUMPTION AND ECONOMIC GROWTH NEXUS: A LONG ARDL BOUNDS TEST APPROACH

Presenter: Luis Miguél Marques, *University of Beira Interior, Portugal*
Co-Authors: José Alberto Fuinhas and António Cardoso Marques

A COMPARISON OF NEW ENERGY TECHNOLOGY COMPETITIVENESS INDEX BY COUNTRIES

Presenter: Soouk Park, *Korea Institute of Energy Research(KIER), Republic of Korea*

Co-Authors: ChiHye Bae and Deokki Lee

THE GAINERS AND LOSERS OF GLOBAL WARMING: IMPLICATIONS FOR ADAPTATION AND MITIGATION

Presenter: Louis-Gaëtan Giraudet, *Ecole des Ponts ParisTech & CIREN, France*

Co-Author: Céline Guivarch

50 Ensuring the flexibility of the grid (Room 108)

Chair: Torjus Folsland Bolkesjø, *Norwegian University of Life Sciences, Norway*

REACHING THE SMART GRID'S POTENTIAL: DEFINING LOCAL MARKETS FOR FLEXIBILITY

Presenter: Ariana Ramos Guitierrez, *KU Leuven – EnergyVille, Belgium*

Co-Authors: Cedric De Jonghe, Virginia Gómez and Ronnie Belmans

CONVENTIONAL POWER SYSTEM FLEXIBILITY IN GERMANY

Presenter: Lisa Marina Koch, *Technical University of Berlin, Germany*

FLEXIBLE AND INTEGRATED: PHOTOVOLTAIC INVESTMENT EVALUATION IN A SMART GRID ENVIRONMENT

Presenter: Marina Bertolini, *University of Padua, Italy*

Co-Authors: Michele Moretto and C. D'Alpaos

COST/BENEFIT ANALYSIS OF FURTHER EXPANSION OF THE AUSTRIAN TRANSMISSION GRID TO ENABLE FURTHER RES-E INTEGRATION

Presenter: Bettina Burgholzer, *Vienna University of Technology, Austria*

INCREASED ELECTRICITY DEMAND FLEXIBILITY ENABLED BY SMART GRID: IMPACTS ON PRICES, SECURITY OF SUPPLY AND REVENUES IN NORTHERN EUROPE

Presenter: Torjus Folsland Bolkesjø, *Norwegian University of Life Sciences, Norway*

Co-Authors: Asa Grytli Tveten and Iliana Ilieva

Concurrent Sessions 11:00 - 12:50h

51 Understanding the gas market and shale gas implications (Room 112)

Chair: Alberto G. Pincherle, *AIEE, Italy*

THE LAW OF ONE PRICE IN GLOBAL NATURAL GAS MARKETS – A THRESHOLD COINTEGRATION ANALYSIS

Presenter: Benjamin Tischler, *University of Cologne, Germany*

Co-Author: Sebastian Nick

COMPARISON OF NATURAL GAS SUPPLY RESPONSES TO SEASONALITY

Presenter: Sam Van Vactor, *Economic Insight Inc., USA*

Co-Author: Don Winslow

ABUSE OF DOMINANCE IN VERTICALLY DISINTEGRATED GAS MARKETS

Presenter: Heloisa Borges Bastos Esteves, *National Agency for Petroleum, Natural Gas and Biofuels, Brasil*

DIVERSITY OF THE MEANS OF NATURAL GAS PURCHASE

Presenter: Satoru Hashimoto, *Teikyo University, Japan*

IMPACT OF UNCONVENTIONAL GAS PRICES ON GCC ECONOMY; PETROCHEMICAL INDUSTRY

Presenter: Meshal Al Samhan, *Kuwait Institute for Scientific Research, Kuwait*

Co-Author: Jamal Al-Fadli

THE IMPACT OF SHALE GAS ON THE COSTS OF CLIMATE POLICY

Presenter: Jan Kersting, *Fraunhofer Institute ISI, Germany*

Co-Author: Vicki Duscha

52 Consideration on investment for utilities (Room 104)

Chair: Niklas Poier, *TU Dortmund University, Germany*

RISK MANAGEMENT AND PORTFOLIO OPTIMIZATION FOR GAS-AND COAL-FIRED POWER PLANTS IN GERMANY: A MULTIVARIATE GARCH APPROACH

Presenter: Georgios Charalampous, *School of Science and Technology, International Hellenic University, Greece*

Co-Author: Reinhard Madlener

EVOLVE OR DIE: NEW BIDDING STRATEGIES FOR COMBINED CYCLE ELECTRICITY PLANTS AFTER THE INTRODUCTION OF RENEWABLE ENERGY

Presenter: Cristina Pizarro Irizar, *University of the Basque Country, Spain*

Co-Authors: Aitor Ciarreta and Maria Paz Espinosa

ELECTRICITY DERIVATIVE MARKETS AND SAMUELSON HYPOTHESIS

Presenter: Edouard Jaeck, *Paris-Dauphine, France*

Co-Author: Delphine Lautier

INTEGRATED POWER TRANSMISSION AND GENERATION EXPANSION PLANNING – A MODEL FORMULATION FOR GERMANY IN 2033

Presenter: Andreas Bloess, *Berlin Institute of Technology (TU Berlin), Germany*

Co-Author: Clemens Gerbaulet

A FAST METHOD FOR GENERATION-PARK-DEVELOPMENT ANALYSIS

Presenter: Niklas Poier, *Institute of energy systems, energy efficiency and energy economics, TU Dortmund University, Germany*

Co-Author: Christian Rehtanz

53 An overview on RES support policy experience I (Room 105)

Chair: Kristin Linnerud, *CICERO, Norway*

OPERATIONAL COSTS OF THE SPANISH ELECTRICITY SYSTEM: A DEMAND OR SUPPLY EFFECT?

Presenter: Joan Batalla-Bejerano, *University of Barcellona, Spain*

Co-Author: Elisa Trujillo Baute

THE IMPACT OF SUPPORT SCHEMES APPLIED FOR ELECTRICITY PRODUCED FROM RENEWABLE ENERGY SOURCES ON ELECTRICITY PRICES IN THE BALTIC STATES

Presenter: Viktorija Bobinaite, *Institute of Physical Energetics, Latvia*

RENEWABLE ENERGY INCENTIVES AND CO₂ ABATEMENT IN ITALY

Presenter: Claudio Marcantonini, *European University Institute, Italy*

Co-Author: Vanessa Valero

ENCOURAGING HYDRO-SOLAR COMPLEMENTARITY IN THE SWISS ELECTRICITY MARKET

Presenter: Sebastian Osorio, *University of Lausanne, Switzerland*

Co-Author: Ann van Ackere

THE USE OF RENEWABLE ENERGY COOPERATION MECHANISM: EVIDENCE FROM HYDROPOWER PROJECTS IN NORWAY

Presenter: Kristin Linnerud, *CICERO, Norway*

Co-Author: Erling Holden

54 Energy supply and security (Room 118)

Chair: Carlo Di Primio, *Vice President of AIEE, Italy*

ENERGY SECURITY INDICATORS: ARE THEY HELPFUL IN ASSESSING POLICIES ADDRESSING ENERGY SECURITY?

Presenter: Markus Bortolamedi, *University of Oldenburg, Germany*

Co-Author: Christoph Böhlinger

ON THE IMPACT OF MARKET CONCENTRATION ON INVESTMENT DECISIONS AND SECURITY OF SUPPLY IN ELECTRICITY MARKETS – AN AGENT-BASED ANALYSIS

Presenter: Stefan Lorenczik, *Institute of Energy Economics, University of Cologne, Germany*

Co-Author: Raimund Malischek

THE FUTURE OF NATURAL GAS IN UKRAINE: IMPLICATIONS FOR EUROPE'S SECURITY OF GAS SUPPLY

Presenter: Chi Kong Chyong, *EPRG, University of Cambridge, UK*

WILL CHINA'S QUEST FOR NATURAL GAS AFFECT EUROPE'S ENERGY SECURITY?

Presenter: Ronald D. Ripple, *Collins College of Business, University of Tulsa, USA*

55 Bioenergy: helping the climate constraints (Room 102)

Chair: Robert Lundmark, *Luleå University of Technology, Sweden*

THE GLOBAL ECONOMIC LONG-TERM POTENTIAL OF MODERN BIOMASS IN A CLIMATE CONSTRAINED WORLD

Presenter: David Klein, *Potsdam Institute for Climate Impact Research, Germany*

Co-Authors: Florian Humpenöder, Nico Bauer, Jan Philipp Dietrich, Alexander Popp, Benjamin Bodirsky, Markus Bonsch and Hermann Lotze-Campen

ENERGY PRICE VOLATILITY: THE LINK BETWEEN FOSSIL ENERGY AND WOODY BIOENERGY

Presenter: Robert Lundmark, *Luleå University of Technology, Sweden*

EMISSION PAYMENTS AND SUSTAINABILITY CRITERIA FOR SOLID WOOD BIOMASS: OPTIMAL ENERGY MIX AND COSTS OF TARGETS

Presenter: Johanna Pohjola, *Finnish Environment Institute, Finland*
Co-Authors: Jussi Lintunen, Jani Laturi and Jussi Uusivuori

LIFE CYCLE ASSESSMENT OF WASTE TO ENERGY PLANT WITH AND WITHOUT CARBON DIOXIDE CAPTURE TECHNOLOGY

Presenter: Antonio Geracitano, *University Roma Tre, Italy*

56 The European carbon market (Room 106)

Chair: Vanessa Zorilla Muñoz, *Carlos III University of Madrid, Spain*

EMISSIONS TRADING IN THE PRESENCE OF PRICE-REGULATED POLLUTING FIRMS: HOW COSTLY ARE FREE ALLOWANCES?

Presenter: Sebastian Rausch, *ETH Zurich, Switzerland*

Co-Author: Bruno Lanz

AN ANALYSIS OF ALLOWANCE BANKING IN THE EU ETS

Presenter: Aleksandar Zaklan, *European University Institute and DIW Berlin, Germany*

Co-Authors: Vanessa Valero and Denny Ellerman

THE EU EMISSION TRADING SCHEME: FIRST EVIDENCE ON PHASE 3

Presenter: Claudia Kettner, *Austrian Institute of Economic Research (WIFO), Austria*

A METHODOLOGY TO RECONCILE THE EU ETS WITH NATIONAL ECONOMIC AND ENVIRONMENTAL ACCOUNTS

Presenter: Matthew Winning, *Energy Institute, University College London, UK*

Co-Authors: Grant Allan, Peter McGregor and Kim Swales

IMPACT OF THE FLEXIBILITY IN THE INTERNATIONAL CARBON CREDITS MARKET ON THE EUROPEAN ALLOWANCES PRICE

Presenter: Claire Gavard, *Centre d'Economie de la Sorbonne, Paris 1 University, France*

Co-Author: Djamel Kirat

AN ANALYSIS AND COMPARISON OF THE CLIMATE POLICY AND EMISSION TRADING IN EUROPEAN COUNTRIES

Presenter: Vanessa Zorilla Muñoz, *Carlos III University of Madrid, Spain*
Co-Author: Marc Petz

57 Influence of customers in the electricity market (Room 101)

Chair: Vittorio De Martino, *AIEE, Italy*

AN ANALYSIS ON RESIDENTIAL CUSTOMERS' CHOICE BEHAVIORS OF ELECTRICITY TARIFFS: FOCUSING ON FLAT TARIFFS AND TIME-OF-USE TARIFFS

Presenter: Hisanori Goto, *Central Research Institute of Electric Power Industry, Japan*

MODELING AND FORECASTING THE SHORT RUN ELECTRICITY DEMAND: A COMPARISON OF ECONOMETRIC METHODS FOR EU AND LATAM COUNTRIES

Presenter: Claudio Dicembrino, *Enel Spa, Italy*

Co-Author: Giovanni Trovato

A SYSTEMATIC MAPPING AND EVALUATION OF BARRIERS AND BENEFITS OF THE DEMAND SIDE RESOURCE PARTICIPATION IN ELECTRICITY MARKETS

Presenter: Joonas Paivarinta, *RWTH Aachen University, Germany*
Co-Author: Reinhard Madlener

DESIGNING BUSINESS MODELS FOR DIFFERENT MARKET PARTICIPANTS IN A HYBRID RETAIL ENERGY MARKET

Presenter: Daniel Schwabeneder, *Vienna University of Technology, Austria*

58 Climate policy: mitigation & adaptation (Room 108)

Chair: Sara Proença, *ESAC/Polytechnic Institute of Coimbra, Portugal*

DEVELOPMENT AND ASSESSMENT OF MITIGATION CLIMATE CHANGE POLICY PORTFOLIOS FOR ESTONIA

Presenter: Nadežda Dementjeva, *Eesti Energia AS, Estonia*

Co-Authors: Popi Konidari and Anna Flessa

POWER SECTOR DECARBONIZATION – WHICH TECHNOLOGIES MATTER?

Presenter: Robert Pietzcker, *Potsdam Institute for Climate Impact Research, Germany*

Co-Author: Gunnar Luderer

TOWARD THE FUTURE CLIMATE REGIME: A REGIONAL LONG TERM PERSPECTIVE OF POLITICAL TARGETS AND TECHNOLOGICAL OPTIONS

Presenter: Sandrine Selosse, *MINES ParisTech, France*

Co-Authors: Nicolas Garcia and Nadia Maïzi

IMPACT ASSESSMENT OF ENERGY/CLIMATE POLICIES: A HYBRID GENERAL EQUILIBRIUM ANALYSIS FOR PORTUGAL

Presenter: Sara Proença, *ESAC/Polytechnic Institute of Coimbra, Portugal*

Co-Author: Miguel St. Aubyn

59 The impacts of RES on the economy (Room 107)

Chair: Laura Castellucci, *University of Rome Tor Vergata, Italy*

THE RENEWABLE VS. NON-RENEWABLE ELECTRICITY AND INDUSTRIAL PRODUCTION NEXUS IN GREECE: AN ARDL APPROACH

Presenter: António Cardoso Marques, *NECE and University of Beira Interior, Portugal*

Co-Authors: José Alberto Fuinhas and Angeliki N. Menegaki

INTEGRATION COSTS AND THE VALUE OF WIND POWER

Presenter: Lion Hirth, *Vattenfall GmbH, Germany*

Co-Authors: Falko Ueckerdt and Ottmar Edenhofer

GROSS EMPLOYMENT FROM RENEWABLE ENERGY IN GERMANY

Presenter: Marlene O'Sullivan, *German Aerospace Center, Institute of Technical Thermodynamics, Germany*

Co-Authors: Ulrike Lehr and Dietmar Edler

REPLACING ITALY'S RES-E SURCHARGE WITH A CARBON TAX: A MACROECONOMIC ANALYSIS

Presenter: Stefano Verde, *European University Institute, Italy*

Co-Author: M.G. Paziienza

SUSTAINABLE GROWTH WITH RENEWABLE AND FOSSIL FUEL S ENERGY SOURCES: A DSGE APPROACH

Presenter: Amedeo Argentiero, *University of Perugia, Italy*

Co-Authors: Carlo Andrea Bollino and Silvia Micheli

AN UNORTHODOX WAY OF REDUCING PUBLIC DEBT BURDEN: THE POTENTIAL ROLE OF RENEWABLE ENERGY

Presenter: Laura Castellucci, *University of Rome Tor Vergata, Italy*

Co-Authors: Alessio D'Amato and Francesca Diluio

60 Network investment and regulation (Room 109)

Chair: Jessica Thomsen, *Fraunhofer ISE, Germany*

REGULATORY INCENTIVES FOR NETWORK INVESTMENTS – A SYSTEM DYNAMICS APPROACH FOR ANALYSING THE SUSTAINABILITY OF REGULATORY FRAMEWORK DECISIONS IN THE GERMAN ELECTRICITY INDUSTRY

Presenter: Katharina Ruikis, *TU Dortmund University, Germany*

Co-Authors: Sören Agne, Micheal Brandau and Andreas Hoffjan

DYNAMIC EFFICIENCY AND INCENTIVE REGULATION: AN APPLICATION TO ELECTRICITY DISTRIBUTION NETWORKS

Presenter: Rahmatallah Poudineh, *Durham University, UK*

Co-Authors: Grigorios Emvalomatis and Tooraj Jamasb

DECENTRALISED MARKET AGENT – DEVELOPING A NEW MARKET ROLE IN DISTRIBUTED ELECTRICITY SYSTEMS

Presenter: Jessica Thomsen, *ISE, Germany*

Co-Authors: Niklas Hartmann

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61 In depth view of gas market (Room 112)

Chair: Chris Cuijpers, *Commission for Electricity and Gas Regulation (CREG), Belgium*

GAS TRANSPORT: PIPELINE VERSUS LNG

Presenter: Atle Oglend, *University of Stavanger, Norway*

Co-Author: Petter Osmundsen

THE CONVENIENCE YIELD IMPLIED IN THE EUROPEAN NATURAL GAS MARKETS - THE IMPACT OF STORAGE AND WEATHER

Presenter: Margarethe Rammerstorfer, *Modul University Vienna, Austria*

Co-Author: Thomas Kremser

MARKET LIBERALISATION AND PRICING MECHANISMS IN THE EUROPEAN NATURAL GAS MARKET

Presenter: Andrzej Robaszewski, *Gas Transmission Operator Gaz-System S.A., Poland*

CALCULATION OF THE MAXIMUM COMMERCIAL BORDER CAPACITY IN INTERCONNECTED GAS NETWORKS

Presenter: Chris Cuijpers, *Commission for Electricity and Gas Regulation (CREG), Belgium*

Co-Author: Andreas Tirez

62 Investment Risks in Power Sector (Room 101)

Chair: Carlo Lucheroni, *School of Science and Technologies, Math Building, University of Camerino, Italy*

ANALYZING INVESTMENT RISKS IN CONVENTIONAL AND RENEWABLE ENERGY DOMINATED ELECTRICITY MARKETS

Presenter: Oliver Tietjen, *Potsdam Institute for Climate Impact Research (PIK), Germany*

Co-Author: Michael Pahle

ENERGY ONLY MARKETS: ARE THEY EFFICIENT WITH LARGE AMOUNTS OF INTERMITTENT GENERATION?

Presenter: Stephen Poletti, *University of Auckland, New Zealand*
Co-Authors: Oliver Browne and David Young

MANAGING INVESTOR AND CONSUMER EXPOSURE TO ELECTRICITY MARKET PRICE RISK THROUGH: FEED IN TARIFF DESIGN

Presenter: Niall Farrell, *Economic and Social Research Institute, Ireland*
Co-Authors: Mel Devine and William Lee

THE EFFECT OF FLUCTUATIONS IN NATURAL GAS PRICES ON COMPETITION IN OLIGOPOLISTIC ELECTRICITY MARKETS

Presenter: Nurit Gal, *Public Utility Authority – Electricity, Israel*
Co-Authors: Irena Milstein, Asher Tishler and C.K. Woo

STOCHASTIC LCOE AND RISK/COST TRADE-OFF IN ELECTRICITY GENERATION PORTFOLIO SELECTION

Presenter: Carlo Lucheroni, *School of Science and Technologies, Math Building, University of Camerino, Italy*
Co-Author: Carlo Mari

63 An overview on RES support policy experience II (Room 105)

Chair: Fehmi Gorkem Uctug, *Bahcesehir University, Turkey*

PROMOTING RENEWABLE ENERGIES IN THE MENA REGION: REGULATORY DEVELOPMENTS AND POSSIBLE INTERACTIONS WITH FUTURE EU SUPPORT SCHEMES FOR RES-E

Presenter: Inga Boie, *Fraunhofer ISI, Germany*
Co-Authors: Mario Ragwitz and Simone Steinhilber

CAN RENEWABLE ENERGY ENERGISE REMOTE AUSTRALIAN COMMUNITIES?

Presenter: Liam Byrnes, *The University of Queensland, Australia*
Co-Authors: Colin Brown, Liam Wagner and John Foster

AUSTRALIA'S MILLION SOLAR ROOFS: DISRUPTION ON THE FRINGES OR THE BEGINNING OF A NEW ORDER?

Presenter: Bruce Mountain, *Carbon and Energy Markets, Australia*
Co-Author: Paul Szuster

64 Energy security in Europe (Room 118)

Chair: Pippo Ortigosa Ranci, *Catholic University, Italy*

THE EFFECTS OF REGULATORY FRAMEWORKS ON ELECTRICITY SUPPLY SECURITY: A EUROPEAN ANALYSIS

Presenter: Michael Schmidhalter, *Energy Institute, Johannes Kepler University Linz, Austria*
Co-Authors: Stefan Schmidinger, Jed Cohen and Johannes Reichl

LONG-TERM EUROPEAN STRATEGIES TO ENHANCE GAS SUPPLY SECURITY

Presenter: Baltazar Solano Rodriguez, *UCL Energy Institute, UK*
Co-Author: Christophe McGlade

EU CLIMATE/ENERGY POLICIES AND ENERGY SUPPLY SECURITY IN A SMALL OPEN ECONOMY. ENERGYSUPPLY SECURITY ASSESSMENT FOR BELGIUM UP TO 2030

Presenter: Dominique Gusbin, *Federal Planning Bureau, Belgium*
Co-Author: Danielle Devogelaer

65 Bioenergy for sustainable system (Room 102)

Chair: Alberto G. Pincherle, *AIEE, Italy*

LAND-USE COMPETITION BETWEEN ENERGY AND FOOD – THE CASE OF CLIMATE CHANGE MITIGATION IRELAND

Presenter: Alessandro Chiodi, *University College Cork, Ireland*
Co-Authors: James Breen, Trevor Donnellan, Maurizio Gargiulo, Paul Deane and Brian Ó Gallachóir

CAN TORREFIED PRODUCTS ENHANCE THE EUROPEAN BIOENERGY PORTFOLIO?

Presenter: Fabian Schipfer, *Vienna University of Technology, Austria*
Co-Authors: Kathrin Bienert, Rita Ehrig, Lukas Kranzl, Stefan Majer, Julian Matzenberger, Christoph Strasser, Martin Svanberg, Markus Meyer and Jörg A. Priess

LARGE-SCALE LAND ACQUISITIONS IN AFRICA. EXPLORING PLAYERS, ROLES AND RESPONSIBILITIES

Presenter: Stefania Bracco, *University of Siena, Italy*

SOYBEAN AND SUGARCANE LAND COMPETITION: IMPLICATIONS ON DEFORESTATION IN THE BRAZILIAN AMAZON

Presenter: Anelise Rahmeier Seyffarth, *University of Oldenburg, Germany*
Co-Author: Emmanuel Asane-Otoo

POSSIBLE IMPACTS OF SUSTAINABILITY INITIATIVES IN INTERNATIONAL BIOFUELS TRADE: ANALYSIS FROM CERTIFICATION EXPERIENCE IN OTHER ECONOMIC SECTORS

Presenter: Rachel Marini Ravagnani, *State University of Campinas – Unicamp, Brasil*
Co-Author: Arnaldo Walter

66 Measures and policies to limit GHG emissions: general aspects (Room 104)

Chair: Ernesto Cassetta, *University of LUISS, Italy*

CARBON DIVESTMENT AS RATIONAL CLIMATE POLICY MEASURE?

Presenter: Florian Habermacher, *University of St. Gallen, Switzerland*

FORECAST OF ENERGY-RELATED CARBON DIOXIDE EMISSIONS IN LITHUANIA

Presenter: Inga Konstantinaviciute, *Lithuanian Energy Institute*
Co-Authors: Vaclovas Miskinis, Arvydas Galinis and Vidas Lekavicius

ECONOMIC DEVELOPMENT AND POLLUTION LEAKAGE

Presenter: Cathy Xin Cui, *Fraser of Allander Institute, University of Strathclyde, UK*

Co-Authors: Kim Swales and Karen Turner

STATE AND TRENDS OF THE VOLUNTARY CARBON CREDITS MARKET

Presenter: Francesco Santocchia, *University of Perugia, Italy*
Co-Author: Carlo Andrea Bollino and Stefania Proietti

67 Consumer behaviour (Room 106)

Chair: Ole Kutzschbauch, *University of Bremen, Centre for Social Policy Research, Germany*

PROBABILISTIC WELFARE ANALYSIS FOR SYSTEM ADEQUACY ANALYTICAL INSIGHTS

Presenter: Julia Bellenbaum, *Universität Duisburg-Essen, Germany*
Co-Author: Christoph Weber

CONSUMER'S WILLINGNESS TO PAY FOR GREEN ELECTRICITY: A META-ANALYSIS OF THE LITERATURE

Presenter: Swantje Sundt, *Kiel Institute for the World Economy, Germany*
Co-Author: Katrin Rehdanz

HOW TO SUPPORT ENERGY EFFICIENCY – AN EXPERIMENTAL INVESTIGATION OF INDIVIDUAL PREFERENCES

Presenter: Gregor Beyer, *Clausthal University of Technology, Germany*
Co-Author: Roland Menges

SOWING THE WIND AND REAPING THE WHIRLWIND? THE EFFECT OF WIND TURBINES ON RESIDENTIAL WELL-BEING

Presenter: Alexander Zerrahn, *German Institute for Economic Research (DIW Berlin), Germany*
Co-Author: Christian Krekel

SOCIAL PREFERENCES AND POLITICAL SUPPORT FOR GERMANY'S ENERGY TURNAROUND: AN EXPERIMENTAL STUDY OF CONSUMER BEHAVIOR

Presenter: Ole Kutzschbauch, *University of Bremen, Centre for Social Policy Research, Germany*
Co-Author: Stefan Traub

68 Demand side and energy efficiency: some studies

(Room 108)

Chair: Clément Morlat, *Université de Versailles Saint Quentin en Yvelines, France*

ADJUSTING THE ELECTRICITY CONSUMPTION: CONSUMER'S OPTION TO CHOOSE

Presenter: Oana Ionescu, *EDDEN, G2ELab, Grenoble Institute of Technology, France*

ENERGY-EFFICIENT INNOVATION A RESPONSE TO MARKET-BASED INCENTIVES?

Presenter: Boris Mrkajic, *Politecnico di Milano, Italy*
Co-Authors: Paola Garrone and Luca Grilli

EVALUATING THE ENERGY SAVINGS EFFECTS OF A UTILITY DSM PROGRAMS USING A DIFFERENCE-IN-DIFFERENCE COARSENEDED EXACT MATCHING APPROACH

Presenter: Richard Boampong, *University of Florida, USA*

DYNAMIC MODELLING OF COST SYSTEMS APPLIED TO ENERGY TRANSITION

Presenter: Clément Morlat, *Université de Versailles Saint Quentin en Yvelines, France*
Co-Author: Kleber Pinto-Silva

69 Sectoral approach of industry to energy efficiency (Room 107)

Chair: Dario Di Santo, *Fire, Italy*

THE EUROPEAN STEEL TECHNOLOGY PLATFORM'S STRATEGIC RESEARCH AGENDA VISION FOR THE SUSTAINABLE STEEL PRODUCTION 2030s

Presenter: Enrico Malfa, *Centro Sviluppo Materiali S.p.A, Italy*
Co-Authors: Jean-Pierre Birat, Valentina Colla and Jean Sebastien ThomasArcelon

CLIMATE POLICY ANALYSIS WITH SECTORAL TARGETS FOR THE STEEL SECTOR

Presenter: Vicky Duscha, *Fraunhofer ISI, Germany*
Co-Authors: Everett Peterson, Joachim Schleich and Katja Schumacher

ELECTRICITY PRICE DEPENDENCY OF GERMAN INDUSTRIAL SECTORS AND EXEMPTION FROM THE "EEG APPORTIONMENT"

Presenter: Ralf-M Marquardt, *Westfälische Hochschule, Germany*

ENERGY MANAGER AS AN OBLIGATION FOR LARGE END USERS: THE ITALIAN EXPERIENCE

Presenter: Dario Di Santo, *Fire, Italy*

Co-Authors: Giuseppe Tomasetti, Francesco Belcastro, Enrico Biele and Stefano D'Ambrosio

70 Smart grids and markets I (Room 109)

Chair: Federico Santi, *Scientific Director of Fondazione Energia, Italy*

REAL-TIME PRICING IN THE CYPRIOT ELECTRICITY MARKET

Presenter: Sener Salci, *University of Birmingham, UK*

LOCAL PRICING WITH AGENTS IN THE DISTRIBUTION GRID

Presenter: Jessica Raasch, *Universität Duisburg-Essen, Germany*

Co-Author: Christoph Weber

MODELLING THE FLEX-OFFER AS A COMMODITY

Presenter: Luis Boscán, *Copenhagen Business School (CBS), Denmark*

Co-Authors: Peter Bogetoft and Peter Møllgaard

RES LOAD DIAGRAM ANALYSES - STEP TOWARDS VIRTUAL POWER PLANT

Presenter: Michaela Hrochova, *Czech Technical University, Czech Republic*

Co-Authors: Jaroslav Knápek and Tomáš Králík

MODELING THE INTEGRATION OF VARIABLE RENEWABLE ENERGIES (VRE) INTO THE ELECTRICAL GRID IN THE WITCH MODEL: TECHNO-ECONOMIC IMPACTS OF DIFFERENT APPROACHES

Presenter: Giacomo Marangoni, *Fondazione Eni Enrico Mattei and Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC), Italy*

Co-Author: Samuel Carrara

Concurrent Sessions 15:30 - 17:00h

71 CCS: opportunity for the future (Room 112)

Chair: Marc Vielle, *EPFL-REME, Switzerland*

PROMOTING CCS IN EUROPE: A CASE STUDY FOR STRATEGIC TRADE POLICY?

Presenter: Sverre A.C. Kittelsen, *The Frisch Centre, Norway*

Co-Authors: Simen Gaure, Mads Greker, Knut Einar Rosendahl and Rolf Golombek

EXPLORING UNCERTAINTIES IN CCS – DECARBONIZATION OF THE POWER SECTOR & COUNTRYWISE OPPORTUNITIES

Presenter: Rajesh Mathew Pattupara, *Paul Scherrer Institute, Switzerland*

Co-Author: Ramachandran Kannan

CARBON PRICES AND CCS INVESTMENTS: A COMPARATIVE STUDY BETWEEN THE EUROPEAN UNION AND CHINA

Presenter: Marie Renner, *Paris Ouest Nanterre University, France*

TIME AND TIDE WAIT FOR NO MAN PIONEERS AND LAGGARDS IN THE DEPLOYMENT OF CCS

Presenter: Stefan Vögele, *Institute for Energy and Climate Research, Germany*

Co-Author: Dirk Rübhelke

A STOCHASTIC DYNAMIC GAME OF THE 2050 EUROPEAN ENERGY ROADMAP WITH CCS UNCERTAINTIES

Presenter: Marc Vielle, *EPFL-REME, Switzerland*

Co-Authors: Alain Haurie and Frédéric Babonneau

72 Elements that influence the energy utilities investments (Room 118)

Chair: Rolf Golombek, *The Frisch Centre, Norway*

POWER PLANT INVESTMENTS UNDER UNCERTAINTY - A LINEAR MEAN RISK MODEL FOR SELECTING EFFICIENT POWER PLANT PORTFOLIOS

Presenter: Johann Gottschling, *Institute of Energy Economics and the Rational Use of Energy (IER), University of Stuttgart, Germany*

Co-Author: Alfred Voß

EFFECT OF DYNAMIC ELECTRICITY TRANSMISSION TARIFFS ON INVESTMENT ALLOCATION

Presenter: Ilya Bilibin, *Interdisciplinary Centre for Security, Reliability and Trust, Luxemburg*

Co-Author: Jürgen Sachau

A FUNCTIONAL EFFICIENCY INDEX OF ENERGY FUTURES MARKETS

Presenter: Meliyara Consuegra, *Universidad Nacional de Educación a Distancia (UNED), Spain*

Co-Author: Javier García-Verdugo

FUNDAMENTAL DRIVERS OF REGIME-SWITCHING: AN ANALYSIS OF GERMAN POWER PRICES

Presenter: Andreas Gerster, *Ruhr Graduate School in Economics, Germany*

THE IMPACT OF UNCERTAINTY ON THE EUROPEAN ENERGY MARKET: A SCENARIO AGGREGATION APPROACH

Presenter: Rolf Golombek, *The Frisch Centre, Norway*

Co-Authors: Kjell Arne Brekke, Michal Kaut, Sverre A.C. Kittelsen and Stein W. Wallace

73 Developments of Photovoltaic (Room 105)

Chair: Manfred Weissenbacher, *Institute for Sustainable Energy, University of Malta*

SOLAR PHOTOVOLTAICS IN BRAZIL: ADDRESSING THE CHASM PREVENTING THE DEPLOYMENT OF ITS DISTRIBUTED GENERATION

Presenter: Clarice C. de M. Ferraz, *Economics Institute, Federal University of Rio de Janeiro, Brasil*

QUANTITATIVE ANALYSIS OF THE MERIT ORDER EFFECT FROM PHOTOVOLTAIC PRODUCTION IN KEY EUROPEAN COUNTRIES AND EFFECT OF MARKET COUPLING

Presenter: Henri Gouzerh, *IEA-PVPS, Belgium*

Co-Authors: Nicolas Gourvitch, Gaetan Masson and Sinead Orlandi

MACRO PLANNING OF PHOTOVOLTAIC CAPACITY: MATCHING ORIENTATION AND TILT ANGLES TO LOAD PROFILES IN ABSENCE OF FREE MARKETS

Presenter: Manfred Weissenbacher, *Institute for Sustainable Energy, University of Malta, Malta*

Co-Author: Therese Attard

74 Urbanisation and RES (Room 101)

Chair: Afonso Henriques Moreira Santos, *Universidade Federal de Itajubá (UNIFEI), Brazil*

TERRITORIAL OPEN DATA TO SUPPORT SEAP DEVELOPMENT

Presenter: Fabio Disconzi, *University of Padua, Italy*

Co-Author: Arturo Lorenzoni

A STUDY OF THE ACTUAL CONDITIONS OF RENEWABLE ENERGY USE IN THE JAPANESE MUNICIPALITIES

Presenter: Kohei Fujii, *Hitotsubashi University, Japan*

Co-Authors: Hidetoshi Yamashita and Shinichiro Okushima

SOCIOECONOMIC IMPACT OF THE RENEWABLES: THE EFFECT ON THE REGIONAL STRUCTURING

Presenter: Alfonso Aranda-Usón, *CIRCE – University of Zaragoza, Spain*

Co-Authors: Eva Llera, Sabina Scarpellini, Miguel Marco and Juan Aranda

GEODIS - GEOGRAPHIC DISPERSED AND INTEGRATED ENERGETICAL SYSTEMS

Presenter: Afonso Henriques Moreira Santos, *Universidade Federal de Itajubá (UNIFEI), Brazil*

Co-Authors: Maíra Dzedzej, Edmilson Moreira Santos and Rodolfo Mendes de Lima

75 Energy from biomass (Room 102)

Chair: Cristina De La Rúa Lope, *CIEMAT, Spain*

A NEW APPROACH FOR BIOMASS POTENTIAL DETERMINATION – A CASE STUDY FOR THE CZECH REPUBLIC

Presenter: Jaroslav Knápek, *Czech Technical University in Prague, Czech Republic*

Co-Author: Kamila Vávrová

MODELLING THE IMPACTS OF POLICIES ON MICROALGAE BIOFUEL FEEDSTOCKS DIFFUSION

Presenter: Lauro André Ribeiro, *University of Coimbra, Portugal*

Co-Authors: Patrícia Pereira da Silva, Leila Ribeiro and Fernando Luis Dotti

DISTRIBUTIONAL EFFECTS OF THE GERMAN BIOFUEL QUOTA

Presenter: Luisa Sievers, *Fraunhofer ISI, Germany*

Co-Authors: Vanessa Spieth and Axel Schaffer

PRODUCTIVITY AND EFFICIENCY MEASUREMENT OF THE DANISH CENTRALIZED BIOGAS POWER SECTOR

Presenter: Niels Vestergaard, *University of Southern Denmark*

Co-Author: Viktor J. Racz

ASSESSMENT OF THE MAGNITUDE AND LOCATION OF SOCIO-ECONOMIC BENEFITS OF SPANISH BIOFUEL PRODUCTION

Presenter: Cristina De La Rúa Lope, *CIEMAT, Spain*

Co-Authors: Natalia Caldes and Yolanda Lechón

76 Studies on CO₂ emissions (Room 104)

Chair: Nicholas Howarth, *King Abdullah Petroleum Studies and Research Center, Saudi Arabia*

MITIGATING THE CLIMATE ACTION GAP WITH TECHNOLOGY POLICIES

Presenter: Christoph Bertram, *Potsdam-Institute for Climate Impact Research, Germany*

Co-Authors: Gunnar Luderer, Robert Pietzcker, Elmar Kriegler and Ottmar Edenhofer

ASPECTS OF GOVERNANCE AND CO₂ EMISSION: A NON-LINEAR ANALYSIS

Presenter: Yashar Tarvedi Mamaghani, *University of Western Australia*

ENERGY PRODUCTIVITY: ALIGNING GLOBAL AGENDAS

Presenter: Nicholas Howarth, *King Abdullah Petroleum Studies and Research Center, Saudi Arabia*

Co-Author: Tarek Atallah, Patrick Bean, Berenice Garcia Tellez and Anwar Gassim

77 Public Attitude (Room 106)

Chair: İlhan Or, *Bogazici University, Turkey*

A RANGE BASED MAMCA: A WAY TO INCORPORATE UNCERTAINTY IN THE PARTICIPATORY DECISION PROCESS

Presenter: Gino Baudry, *University of Nantes, France*

Co-Authors: Cathy Macharis and Thomas Vallée

SOCIAL ACCEPTANCE AND ENERGY PATHWAYS: DEVIATIONS OF PUBLIC OPINION AND ENERGY TARGETS

Presenter: Daniel Kurt Josef Schubert, *TU Dresden, Germany*

Co-Author: Dominik Möst

SUSTAINABLE ELECTRICITY GRID DEVELOPMENT AND THE PUBLIC: AN ECONOMIC APPROACH

Presenter: Wenche Tobiasson, *Durham University Business School, UK*

Co-Author: Tooraj Jamasb

HOW TO IMPLEMENT CUSTOMER PARTICIPATION WITHIN DISTRIBUTION SYSTEM OPERATORS (DSOS)

Presenter: Markus Graebig, *Technische Universität Berlin (TU Berlin), Germany*

Co-Author: Sebastian Preiß

THE ROLE OF REGIONS AND PROVINCES TO SUPPORT THE PARTICIPATION OF SMALL LOCAL AUTHORITIES IN THE COVENANT OF MAYORS

Presenter: Giulia Melica, *European Commission – Joint Research Centre, The Netherlands*

Co-Authors: Paolo Zancanella, Albana Kona, Silvia Rivas-Calvete, Irene Gabriellaitiene, Andreea Iancu and Paolo Bertoldi

78 Energy in the future: some consideration (Room 108)

Chair: Carlo Di Primio, *AIEE, Italy*

SUSTAINABLE ENERGY DEVELOPMENT: COUNTRIES AND STRATEGIES

Presenter: Tatsiana Zoryna, *State Enterprise "Institute of Power Engineering of the National Academy of Sciences of Belarus", Belarus*

HOW DEPENDENT IS GROWTH FROM PRIMARY ENERGY?**AN ASSESSMENT FOR OECD COUNTRIES**

Presenter: Zeynep Kahraman, *The Shift Project, France*

Co-Author: Gaël Giraud

SAIPEM'S CONTRIBUTION TO LOCAL DEVELOPMENT: A MEASURE OF LOCAL CONTENT EXTERNALITIES CAN HELP IN DEFINING A GROWTH STRATEGY IN THE OIL AND GAS SERVICES SECTOR

Presenter: Marco Stampa, *Saipem S.p.A., Italy*

Co-Author: Raffaella Bersani

IMPACT OF CLIMATE CHANGE AND ELECTRICITY MARKET LIBERALIZATION ON HYDROPOWER PLANTS WITH RESERVOIR

Presenter: Ludovic Gaudard, *RWTH Aachen University, Germany*

WORKING PROGRESS OF ITALIAN POSITION IN TO FRAMEWORK OF SET PLAN

Presenter: Riccardo Basosi, *University of Siena, Italy*

Co-Authors: Marcello Capra and Romano Giglioli

79 Energy costs: implications and threats for industry (Room 107)

Chair: Katharina Grave, *Ecofys, Germany*

INTRA-SECTORAL EFFICIENCY GAINS VS DELOCALIZATION: A DECOMPOSITION ANALYSIS OF GLOBAL ENERGY INTENSITY BETWEEN 2001 AND 2007

Presenter: Silvia Forin, *Institute on Global Commons and Climate Change, Freie Universität of Berlin, Germany*

Co-Authors: Jan Christoph Steckel, Alexander Radebach and Hauke Schult

SECOND RAW MATERIALS: PACKAGING RECOVERY

Presenter: Davide Carminati, *University Roma Tre, Italy*

REAPING THE CARBON RENT: ABATEMENT AND OVERALL-LOCATION PROFITS IN THE EUROPEAN CEMENT INDUSTRY, INSIGHTS FROM AN LMDI DECOMPOSITION

Presenter: Frederic Branger, *CIREN, France*

Co-Author: Philippe Quirion

ASSESSMENT OF INDUSTRIAL ELECTRICITY PRICES

Presenter: Katharina Grave, *Ecofys, Germany*

Co-Author: Martin Pudlik

80 Smart grids and markets II (Room 109)

Chair: Federico Santi, *Scientific Director of Fondazione Energia, Italy*

INTEGRATIVE SMART CITY PLANNING - BUILDINGS AND MOBILITY IN ÉVORA

Presenter: João Pedro Gouveia, *CENSE, Universidade Nova de Lisboa, Portugal*

Co-Authors: Júlia Seixas, Nuno Bilo, António Valentim, Vera Nunes, George Giannakidis, Darren Robinson, Duncan Irons and Maurizio Gargiulo

MICROGRIDS AND PRICING OF ELECTRICITY

Presenter: F. Cigdem Celik, *Istanbul Okan University, Turkey*

MICRO AUCTIONS FOR DISTRIBUTED GENERATION WITH FLEXIBLE ZONES

Presenter: Thomas Greve, *University of Cambridge, UK*

Co-Author: Michael G. Pollitt

INNOVATIVE DEVICE FOR CONTROL OF ELECTRIC ENERGY CONSUMPTION

Presenter: Alexander Mikhalevich, *Institute of Power Engineering/ National Academy of Sciences of Belarus, Belarus*

Co-Authors: J. Matukas, V. Palenskis and S. Žvirblis

Social Events for Accompanying Persons

Visit to the Library of the Senate and the Library of the Chamber of Deputies October 29 - h 10.30 - 12.00 a.m. - pick up point: in front of Hotel Fenix



A visit of the area called "*Insulae Sapientie*" (the "Island of Science") around the *Santa Maria sopra Minerva* near the *Pantheon*, that includes the *Library of the Senate* and of the *Chamber of Deputies*, the *Casanatense Library* and the *Monastery of Santa Maria sopra Minerva*, all part of one of the richest archaeological sites in Rome, most important in the evolution of European history and culture.

The Library of the Senate foundation dates to 1848, its holdings amount to some 700,000 modern and contemporary books, pamphlets and other printed documents, 80 incunabula, 2,000 editions from the 16th century, 8,000 maps, 850 manuscripts, and 2,000 autograph items.

The Library of the Chamber of Deputies also founded in 1848 is an important reference library containing around 1.3 million books, more than 2,000 current periodicals, and more than one hundred databases. The Library specializes in law, history, economics, political science and the history of political institutions.

The Casanatense Library was founded by the Dominicans of the Monastery of Santa Maria sopra Minerva in Rome and was opened to the general public in 1701, according to the will of Cardinal Girolamo Casanate. The first nucleus of the Library was the collection of the Cardinal, which contained up to 25.000 volumes. In 1884 it became state property.

The staff of the Casanatense Library will illustrate the history of the Institute and will accompany the visitors to the Cloister of Minerva. They will also be guided to the monumental hall through an ancient spiral staircase to enjoy a panoramic view on Piazza della Minerva.

IMPORTANT INFORMATION: for security reasons, the names of the visitors will have to be communicated two days before the visit to the Senate and Chamber of Deputies. Visitors should have with them their ID documents (ID card/passport).

Guided visit to the Piazza del Campidoglio and Fori Imperiali area October 29 - h 18.00 - 19.30 - meeting point Piazza del Campidoglio (Capitoline Hill)

During the **Awards Ceremony**, the accompanying persons who will not join the event, are invited to do a guided tour in English starting from the Capitoline Hill, visiting Piazza Venezia, the Theater of Marcellus, Traian's Column. A very interesting commentary and presentation of the archeological area surrounding the Capitol Hill with return at h 19.30 for the Gala dinner. (This visit is opened also to the accompanying persons that have not registered for the conference and will attend only the Gala dinner).

Visit to the National Gallery of Modern and Contemporary Art October 30 - h 10.30 - 12.00 a.m. - pick up point: in front of Hotel Fenix

The collections, comprising approximately 5,000 paintings and sculptures and 12,000 drawings, are displayed chronologically, though the various periods are presented in different ways.

The Museum was born in 1883 when newly unified Italy undertook the founding of its national institutions and the government started to support a 'national' art.

The first works represented the best of what was at that time officially admitted: a great deal of Symbolist, Neo-renaissance Decadentist and Italian *verismo*.

Additionally there were a number of important donations, works by Morelli, Palizzi and Celentano.

Later from 1940's until 1975 Gallery acquired international prestige due to relevant expositions and acquisitions of works by international masters of the 20th century, such as Mondrian, Modigliani, Moore and Pollock as well as Italian artists like Burri, Colla, Capogrossi, Fontana, Manzoni and the Kineticists. Other important donations followed: Balla, De Chirico, Guttuso, Praz, Manzù and Andersen. Another section is devoted to 'Parisians' containing various eclectic artists of the turn of the century: de Nittis and Boldini, Klimt, Courbet, Van Gogh, Degas, Monet and Cézanne.



Visit to the Napoleonic Museum - meeting point in front of the Capitoline Hill stairs (h 9.45) October 31 - h 10.00 - 11.30 - meeting point Piazza del Campidoglio (Capitoline Hill)

The museum tour unwinds through 13 rooms which document three very distinct historical moments: the Napoleonic heroic deeds, the so-called "Roman" period which illustrates the adventures of the family from the fall of Napoleon to the accession of Napoleon III and the period of the second empire.

The objects collected range from paintings to sculptures, from furniture to objects of everyday use, from albums of memoirs to snuffboxes, from clothes to jewels, from books to drawings, in an ensemble of considerable appeal, where every object proves to be interesting both as evidence of art and a taste of the time, and as the fragment of an organized family history. Another purpose of the collection is to document in detail the relations that bound the Bonaparte family to the city of Rome where most of the emperor's family lived, his mother Letizia Ramolino, his sister Paolina, who married the Prince Camillo Borghese, and his brothers Luigi, Girolamo and Luciano.

Useful information:

BUSSES

From Luiss to the Centre of Rome

Bus n° 60 - Express to Piazza Venezia (Campidoglio - Protomoteca - Fori Romani – Colosseo - Via del Corso - Piazza Argentina).

Bus n° 90 - to Termini Station (Last stop)

Bus n° 84 - to Termini Station (Last stop)

Bus n° 62 - to Piazza San Pietro

Bus n° N4 - night bus after h24:00 to Piazza Venezia or from Piazza Venezia to via Nomentana

Bus ticket costs:

Ticket: euro 1.50 for 100 minutes or for one trip in the metro

Ticket: euro 6.00 for one day

Ticket: euro 16.50 for three days

Ticket: euro 24.00 for one week

TAXI

Phone numbers: (country code +39)

063570

060609

066645 (Pronto Taxi 24h)

065551

Taxi stations in the centre of Rome:

Largo Torre Argentina (between the Pantheon and Trastevere),
piazza Fiume (Villa Borghese),

piazza Venezia (near Piazza del Campidoglio - Capitoline Hill)

piazzale Ostiense (railway Station Ostiense)

piazza S. Silvestro (Fontana di Trevi)

piazza dei Cinquecento (Termini Railway Station)

piazzale della Stazione Tiburtina,

piazza Risorgimento (Vatican - San Pietro Church).