



CONFERENCE PROGRAMME



Energy challenge and environmental sustainability

12th IAEE European Energy Conference

September 9-12, 2012
Ca' Foscari University of Venice, Italy

in cooperation with



Università
Ca' Foscari
Venezia



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Editorial Note

Dear Energy Colleague,

The geopolitical events that are changing the international context and the costs of energy supply in most of the European countries and world industrialized nations, make us believe that there will be significant changes in the energy sector during the next years.

The oil markets and the petroleum products will be characterized by high volatility and instability, with rising prices; the gas market will be more open and less tied to oil prices: the coal market, as well as the renewables market will be in strong recovery.

The nuclear accident in Fukushima has brought uncertainty about the development of nuclear power in many countries where this source was present or was being considered as a future resource, thus leading to a closure or a stand-by of many nuclear power plants. This will have two effects: the first is a greater reliance on fossil fuels for electricity production, the second is a negative impact on the environmental sustainability and on the future monitoring of the climate change on our planet.

The increasing dependence on fossil fuels, the problems of security of supply and the best solutions for mitigating

climate change require urgent measures that Europe should quickly adopt.

The first plenary sessions of the 12th IAEE European Energy Conference will therefore be dedicated to the evolution of demand and to the new energy markets less dependent on major commodities.

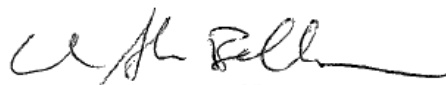
A debate will follow on how to deal with climate change through better regulation of CO₂ emissions and what opportunities Europe can get from these new regulations.

The last sessions of the Conference will deal with energy security in a geopolitical context that is getting more and more complex and difficult in all the main areas of the world.

Besides these main topics the 12th IAEE Conference will also discuss all the issues related to the environmental change and its new perspectives, such as energy efficiency, developing of renewable sources, biofuels and sustainable transportation. The 80 concurrent sessions will be organized in the magical setting of Venice by the AIEE - together with the International Association for Energy Economics - IAEE.



CARLO CARRARO
PROGRAMME COMMITTEE CHAIR
(ccarraro@unive.it)



CARLO ANDREA BOLLINO
GENERAL CONFERENCE CHAIR
(carloandrea.bollino@aiee.it)

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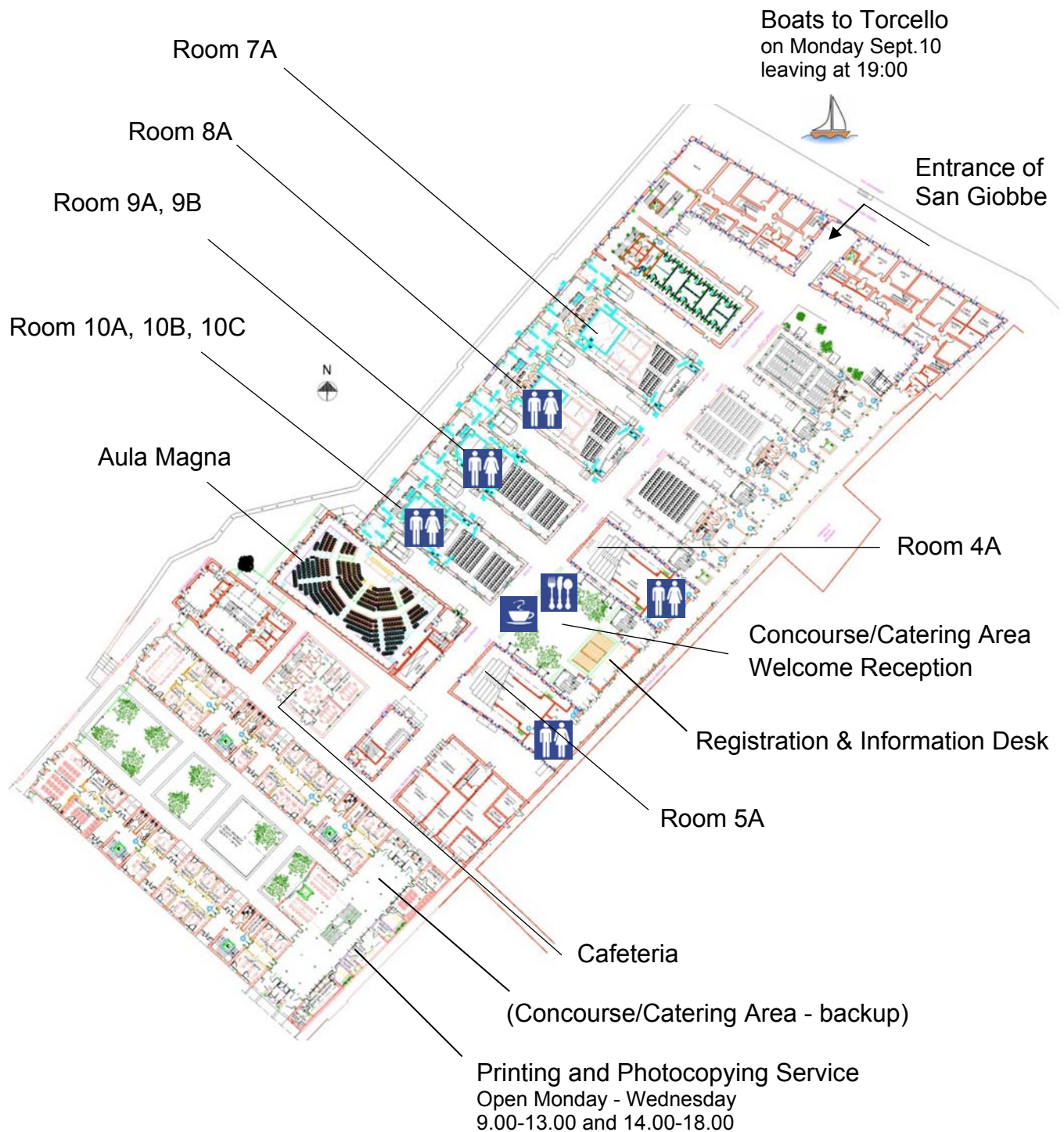
Conference Secretariat

Cecilia Camporeale, AIEE, Italy; **Tullia Di Virgilio**, AIEE, Italy; **Angela Russo**, AIEE, Italy; **Anka Serbu**, AIEE, Italy

Contact:

Phone: +39-06-3227367; +39-06-32652279; Fax: +39-06-3234921
Email: info@iaeeu2012.it; assaiee@aiee.it

San Giobbe Campus Floor Plan



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Conference Programme

Sunday, September 9

- 10.00 – 17.00 IAAE Council Meeting (*Hotel Principe "Cornaro" room*)
- 13.00 – 20.00 **Registration** (*Campus of San Giobbe*)
- 14.00 – 17.30 IAAE European PhD-students Day (*Campus of San Giobbe, Room "10A"*)
- 18.00 – 20.00 **Welcome Reception** (*interior courtyard - Campus of San Giobbe*)
- 20.30 – 22.00 *Student Happy Hour ("Al Parlamento" Bar - Fondamenta San Giobbe 511, Cannaregio)*
- 20.30 – 22.00 *IAAE Council Dinner (Restaurant "L'Anice Stellato" - Fondamenta della Sensa 3272, Cannaregio) (by invitation only)*

Monday, September 10

- 08.15 – 17.30 **Registration**
- 08.15 – 09.00 European Affiliate Breakfast Meeting (Room "F")
Student Breakfast Meeting (Room "E")
- 09.30 – 10.30 **Opening Plenary Session** (Aula Magna)
- Welcome address**
- Carlo Carraro**, *President of Ca' Foscari University of Venice and Chair of the Programme Committee, Italy*
Lars Bergman, *IAEE President, Sweden*
- Invited speakers:*
- Corrado Clini**, *Minister for the Environment, Territory and Sea Protection, Italy*
Emilio Dalmonte, *Deputy Director of the European Commission Representation in Italy*
- 10.30 – 11.00 *Coffee Break*
- 11.00 – 12.30 **Dual Plenary Sessions**
- Energy supply and security** (Aula Magna)
- Chair: Lars Bergman, IAAE President, Sweden*
- Invited speakers:*
- Francesco Gattei**, *Senior Vice President, Scenarios and Long Term Strategic Options, Planning and Control Department ENI, Italy*
Linda DuCharme, *Vice President Europe, Russia and Caspian ExxonMobil, USA*
Manfred Hafner, *Professor at Johns Hopkins University, at Sciences-Po Paris and at Skolkovo Moscow School of Management, Associated Researcher at FEEM, Italy*
- New energy policies in European countries** (Room "7A")
- Chair: Georg Erdmann, Professor for Energy Systems at the Institute for Energy Technology, Berlin University of Technology, Germany*
- Invited speakers:*
- Andreas Löschel**, *Head of Department Environmental and Resource Economics, Environmental Management, Centre for European Economic Research (ZEW) Professor of economics, University of Heidelberg Germany,*
David Newbery, *Director of EPRG, Emeritus Professor of economics, Faculty of Economics, University of Cambridge, United Kingdom.*
Jacques Percebois, *Professor of energy economics and public economics, Montpellier University, France*
- 12.30 – 14.00 *Lunch*

14.00 – 15.30 Concurrent Sessions

- 01 Diffusion of Climate-Friendly Technologies - The Role of Intellectual Property Rights Human Capital and Environmental Policy** (Aula Magna), *Chair:* Andreas Löschel
- 02 New approaches to energy efficiency** (Room "7A"), *Chair:* Alberto Pincherle
- 03 Effects of RES on the electricity systems** (Room "10A"), *Chair:* Mutasem El-Fadel
- 04 Access to energy: general aspects** (Room "10B"), *Chair:* Hong Mi
- 05 An analysis of transport** (Room "10C"), *Chair:* Georg Erdmann
- 06 IAEE Venice Best Paper Award Session** (Room "9A"), *Chair:* Gurkan Kumbaroglu
- 07 Energy supply and security** (Room "9B"), *Chair:* Vincenzo Patti
- 08 The challenges of nuclear power** (Room "8A"), *Chair:* Reinhard Madlener
- 09 Climate change: the challenge** (Room "4A"), *Chair:* Peter R. Hartley
- 10 The wholesale electricity market** (Room "5A"), *Chair:* Adonis Yatchew

15.30 – 16.00 *Coffee Break*

16.00 – 17.30 Concurrent Sessions

- 11 Energy innovation and patenting** (Aula Magna), *Chair:* Carla Olivier Henriques
- 12 Energy efficiency in buildings** (Room "7A"), *Chair:* Felix Kirsch
- 13 Learning by doing: cost reductions for RES** (Room "10A"), *Chair:* Manfred Weissenbacher
- 14 Access to energy in Africa** (Room "10B"), *Chair:* Akinbolaji Iwayemi
- 15 Electric and alternative vehicles** (Room "10C"), *Chair:* Bruno Lapillone
- 16 Bioenergy for sustainable systems** (Room "9A"), *Chair:* Johan Albrecht
- 17 Hydrocarbon supplies** (Room "9 B"), *Chair:* Reinhard Madlener
- 18 Re-thinking nuclear power: after Fukushima** (Room "8A"), *Chair:* Jurgis Vilemas
- 19 Climate policy and emission trading** (Room "4A"), *Chair:* Xavier Labandeira
- 20 The challenge for the electricity company** (Room "5A"), *Chair:* Paolo Polinori

19.00 – 22.30 **Gala Dinner** - Boat trip to the Torcello Island and dinner at the "*Locanda Cipriani*" Restaurant

Tuesday, September 11

08.15 – 19.00 **Registration**

08.15 – 09.00 Energy Journal Board of Editors Breakfast Meeting (Room "F")
Daegu Conference Planning Breakfast Meeting (Room "E")

09.00 – 10.30 Dual Plenary Sessions

Climate change (Aula Magna)

Chair: **Roberto Potì**, Executive Vice President for International, Renewables and Special Projects EDISON

Invited speakers:

Thomas B. Johansson, Professor International Institute for Industrial Environmental Economics, University of Lund, Sweden

Frank Wolak, Director, Program on Energy and Sustainable Development Stanford University, USA.

Ulf Moslener, Professor of Sustainable Energy Finance, Frankfurt School of Finance and Management, Germany

Energy poverty and access to energy (Room "7A")

Chair: **Ugo Farinelli**, AIEE General Secretary, Italy

Invited speakers:

Massimo Tavoni, Senior Researcher, Fondazione Eni Enrico Mattei and CMCC, Italy

Shonali Pachauri, Senior Research Scholar, Energy Program, International Institute for Applied Systems Analysis (IIASA), Austria

Roberto Vigotti, Chairman of the Renewable Energy Working Party of the International Energy Agency

10.30 – 11.00 *Coffee Break*

11.00 – 12.30 Concurrent Sessions

- 21 Smart grids** (Aula Magna), *Chair:* Michael Steck
- 22 Energy efficiency in the residential and commercial sector** (Room “7A”), *Chair:* Massimo Filippini
- 23 Financing RES** (Room “10A”), *Chair:* Danielle Devogelaer
- 24 Access to energy in Asia and South America** (Room “10B”), *Chair:* Pippo Ranci Ortigosa
- 25 The future of transport** (Room “10C”), *Chair:* Kostas Andriosopulos
- 26 Energy from biomass** (Room “9A”), *Chair:* Monica Padella
- 27 Understanding hydrocarbon prices** (Room “9B”), *Chair:* Ugo Farinelli
- 28 CCS and innovation: opportunity for the future** (Room “8A”), *Chair:* Carlo Di Primio
- 29 Climate policy and technology mix** (Room “4A”), *Chair:* Richard Green
- 30 The feed-in-tariff and the electricity price** (Room “5A”), *Chair:* Diego Comin

12.30 – 14.00 *Lunch*

14.00 – 15.30 Dual Plenary Sessions

Financing the transition to a low-carbon economy (Room “7A”)

Chair: **Roberto Malaman**, *Advisor to the Board for Enforcement and Customers' Issues at the Regulatory Authority for Electricity and Gas (AEEG), Italy*

Invited speakers:

Barbara Buchner, *Director of Climate Policy Initiative Europe*
Felice Egidi, *Head of Regulatory and Antitrust Affairs, Enel Green Power, Italy*
Massimo Orlandi, *CEO Sorgenia, Italy*

Energy Markets (Aula Magna)

Chair: **Giuseppe Gatti**, *President GDF Suez, Italy*

Invited speakers:

Jean Michel Glachant, *Director Florence School of Regulation, Italy*
Domenico De Luca, *Energy Trading & Origination Director in EGL AG (Axpo Group), Switzerland*
Tatiana A. Mitrova, *Head of the Center for International Energy Market Studies at the Energy Research Institute of the Russian Academy of Sciences, Russian Federation*

15.30 – 16.00 *Coffee Break*

16.00 – 17.30 Concurrent Sessions

- 31 Smart meters** (Aula Magna), *Chair:* Dario Lucarella
- 32 General aspects of energy saving in industry** (Room “7A”), *Chair:* Christophe Bonnery
- 33 The impact of PV on the merit order** (Room “10A”), *Chair:* G.B. Zorzoli
- 34 The 'resource curse'** (Room “10B”), *Chair:* Edmar Luiz De Almeida
- 35 The perspective of the gas sector** (Room “10C”), *Chair:* Euan Phimister
- 36 Wind energy** (Room “9A”), *Chair:* Christian Panzer
- 37 Effects of hydrocarbon prices** (Room “9B”), *Chair:* Vittorio D'Ermo
- 38 Energy storage: general aspects** (Room “8A”), *Chair:* Federico Santi
- 39 Financing transition to low-carbon economy** (Room “4A”), *Chair:* Fereidoon Sioshansi
- 40 The elements of influence on electricity price** (Room “5A”), *Chair:* Vittorio De Martino

17.30 – 19.00 Concurrent Sessions

- 41 Sustainable communities and citizen-led activities** (Aula Magna), *Chair:* Mine Yucel
- 42 Market instruments for energy efficiency** (Room “7A”), *Chair:* Othman Cole
- 43 Integration of RES in electricity market: impact** (Room “10A”), *Chair:* Rauli Svento
- 44 Energy poverty in developed countries: general aspects** (Room “10B”), *Chair:* Peter McGregor
- 45 The formation of gas price** (Room “10C”), *Chair:* Giovanni Urga
- 46 Energy modeling** (Room “9A”), *Chair:* Manuel Carbugueira
- 47 The roadmap approach: general considerations** (Room “9B”), *Chair:* Knut Einar Rosendahl
- 48 Energy storage: technology and its effect** (Room “8A”), *Chair:* Huei-chu Liao
- 49 GHG emission limitation regime** (Room “4A”), *Chair:* David Newbery
- 50 Reflections on electricity market** (Room “5A”), *Chair:* Hans Auer

20.30 – 22.30 **Conference Dinner** - Ca' Foscari Palace courtyard

Wednesday, September 12

08.15 – 09.00 EEEP Board of Editors Breakfast Meeting (Room "E")
Dusseldorf Conference Planning Breakfast Meeting (Room "F")

09.00 – 10.30 Concurrent Sessions

- 51 Sustainable development and economic growth** (Aula Magna), *Chair:* Jacek Kaminski
- 52 Energy efficiency: country studies** (Room "7A"), *Chair:* Nolan Ritter
- 53 Citizen and market instruments for efficiency** (Room "10A"), *Chair:* Dulce Coelho
- 54 Energy poverty in developed countries: some experiences** (Room "10 B"), *Chair:* Andrea Bigano
- 55 The evolution of the gas market** (Room "10C"), *Chair:* Laurens De Vries
- 56 A model analysis of the energy sector** (Room "9A"), *Chair:* Christoph Weber
- 57 The roadmap approach on RES** (Room "9B"), *Chair:* Carlo Manna
- 58 In depth view of energy modeling** (Room "8A"), *Chair:* Marco Antonio Fidelis
- 59 Towards a low-carbon economy** (Room "4A"), *Chair:* Einar Hope
- 60 Integration of electricity market** (Room "5A"), *Chair:* Olvar Bergland

10.30 – 11.00 *Coffee Break*

11.00 – 12.30 Concurrent Sessions

- 61 Extending the horizons of energy regulation** (Aula Magna), *Chair:* Euan Phimister
- 62 Energy demand: country studies** (Room "7A"), *Chair:* Jerzy Szkutnik
- 63 New energy policies in EU countries** (Room "10A"), *Chair:* Eirik S. Amundsen
- 64 Economic framework: between crisis and recovery** (Room "10B"), *Chair:* Torsten Schmidt,
- 65 Considerations on new-fuel propelled vehicles** (Room "10C"), *Chair:* Francesco Andreotti
- 66 The supply side: a modelling approach** (Room "9A"), *Chair:* Nico Bauer
- 67 Technology development** (Room "9B"), *Chair:* Nevenka Hrovatin
- 68 Modelling and analysing the energy sector** (Room "8A"), *Chair:* Lars Bergman
- 69 Environmental threats and opportunities for energy systems** (Room "4A"), *Chair:* Anni Huhtala
- 70 The European carbon market** (Room "5A"), *Chair:* Aatola Piia

12.30 – 13.30 *Lunch*

13.30 – 15.00 Concurrent Sessions

- 71 Reflection on electricity transmission in the future** (Aula Magna), *Chair:* Vittorio De Martino
- 72 Energy efficiency: economic aspects** (Room "7A"), *Chair:* Jelena Zoric
- 73 An overview on RES policy experiences** (Room "10A"), *Chair:* Margaret Armstrong
- 74 Impact of green policy on electricity market** (Room "10B"), *Chair:* Lise Tole
- 75 Energy drivers** (Room "10C"), *Chair:* Franco Romero
- 76 Studies on RES** (Room "9A"), *Chair:* Nadia Ameli
- 77 The future energy demand** (Room "9B"), *Chair:* Omowumi Iledare
- 78 In-depth view of electricity supply** (Room "8A"), *Chair:* Sophie Meritet
- 79 Studies on emissions** (Room "4A"), *Chair:* Shunsuke Mori
- 80 Energy regulation and electricity market** (Room "5A"), *Chair:* Reinhard Haas

15.00 -16.00 Closing Session (Aula Magna)

Chair: Carlo Andrea Bollino, Professor of Economics at University of Perugia, Italy

Invited speakers:

Reinhard Haas, Professor of Energy Economics at Vienna University of Technology, Austria

Einar Hope, Professor Norwegian School of Economics, Norway



Concurrent Sessions

Monday, September 10

Concurrent Sessions 14:00 - 15:30h

1 Diffusion of Climate-Friendly Technologies - The Role of Intellectual Property Rights, Human Capital and Environmental Policy (Aula Magna)

Chair: Andreas Löschel, *University of Heidelberg, Germany*

THE DIFFUSION OF PHOTOVOLTAIC SYSTEMS

Presenter: Diego Comin, *Harvard University, USA*

Co-Author(s): Johannes Rode

ANALYZING AGGREGATE, NATIONAL AND SECTORAL ENERGY INTENSITY IN 40 COUNTRIES: A RELATIVE COMPARISON

Presenter: Sebastian Voigt, *Centre for European Economic Research (ZEW), Germany*

Co-Author(s): Enrica De Cian, Michael Schymura and Elena Verdolini

ENVIRONMENTAL POLICIES, PRODUCT MARKET REGULATION AND INNOVATION IN RENEWABLE ENERGY

Presenter: Francesco Vona, *OFCE Sciences-Po, France*

Co-Author(s): Francesco Nicolli and Lionel Nesta

2 New approaches to energy efficiency (Room "7A")

Chair: Alberto Pincherle, *AIEE - Italy*

TESTING FOR SPANISH REGIONAL MARKET INTEGRATION IN THE RETAIL OIL INDUSTRY

Presenter: Jacint Balaguer, *University Jaume I of Castellón, Spain*

Co-Author(s): Jordi Ripollés

BEYOND THE AVERAGE ELASTICITY - APPLYING QUANTILE PANEL REGRESSION TO GERMAN HOUSEHOLD MOBILITY DATA

Presenter: Nolan Ritter, *Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany*

THE POTENCIAL AND COST ANALYSIS OF ENERGY SAVING AND EMISSION REDUCTION IN CHINA CEMENT INDUSTRY

Presenter: Alun Gu, *Institute of Energy Environment and Economy, China*

Co-Author(s): Xiusheng Zhao

RESIDENTIAL ENERGY DEMAND AND ENERGY-EFFICIENCY OF THE EU MEMBER STATES: A STOCHASTIC FRONTIER APPROACH

Presenter: Jelena Zoric, *University of Ljubljana, Slovenia*

Co-Author(s): Massimo Filippini and Lester Hunt

3 Effects of RES on the electricity systems (Room "10A")

Chair: Mutasem El-Fadel, *American University of Beirut, Lebanon*

CARBON PRICE AS RENEWABLE ENERGY SUPPORT? EMPIRICAL ANALYSIS ON WIND POWER IN DENMARK

Presenter: Claire Gavard, *Université Paris 1, France*

INCREASING INTERDEPENDENCES BETWEEN THE GERMAN AND AUSTRIAN ELECTRICITY SYSTEM IN CASE OF HIGH SHARES OF VARIABLE WIND AND PV GENERATION

Presenter: Hans Auer, *Delft University of Technology, The Netherlands*

Co-Author(s): Georg Lettner

THE IMPACT OF WIND AND SOLAR ON PEAK AND OFF-PEAK PRICES - EVIDENCE FROM TWO YEAR PRICE ANALYSIS

Presenter: Valerie Speth, *University St. Gallen, Germany*

Co-Author(s): Matthias Stark and Jan Warzecha

RENEWABLE ENERGY FOR POWER GENERATION IN THE MENA REGION: EMISSIONS AND ECONOMIC IMPLICATIONS

Presenter: Mutasem El-Fadel, *American University of Beirut, Lebanon*

Co-Author(s): Grace Rachid, Renalda El Samra, Bou Botros George and Jihan Hashisho

4 Access to energy: general aspects (Room "10B")

Chair: Hong Mi, *Zhejiang University, China*

ENERGY SECURITY, GLOBAL CLIMATE CHANGE AND POVERTY: INTERRELATED CHALLENGES OF ENERGY POVERTY, ENERGY

SECURITY AND CLIMATE CHANGE MITIGATION AND ADAPTATION IN AFRICA

Presenter(s): Nadia Ouedraogo, *University Paris-Dauphine, France*

DIMENSIONAL ANALYSIS OF ENERGY TRANSITIONS

Presenter: Giuliano Buceti, *ENEA, Italy*

5 An analysis of transport (Room "10C")

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

THE IMPACTS OF OIL PRICES ON PUBLIC TRANSPORTATION USE IN TAIWAN

Presenter: Wen Hsiu Huang, *Ling Tung University, Taiwan*

Co-Author(s): Ming-Che Chao

IMPACT OF FEDERAL INCENTIVES ON ADOPTION OF HYBRID VEHICLES

Presenter: Alan Jenn, *Carnegie-Mellon University, USA*

Co-Author(s): Ines Azevedo and Pedro Ferreira

RENEWABLE ENERGY FOR ELECTRIC VEHICLES: PRICE BASED CHARGING COORDINATION

Presenter: Joern Constantin Richstein, *Delft University of Technology, The Netherlands*

Co-Author(s): Alexander Schuller, Wolfgang Ketter, Clemens Van Dinther and Christof Weinhardt

ENVIRONMENTAL REGULATION AND INTERNATIONAL TECHNOLOGY DIFFUSION EVIDENCE FROM THE AUTOMOBILE SECTOR

Presenter: Antoine Dechezlepretre, *London School of Economics, UK*

Co-Author(s): Richard Perkins and Eric Neumayer

6 IAEE Venice Best Paper Award Session (Room "9A")

Chair: Gurkan Kumbaroglu, *Bogazici University, Turkey*

DID FEED-IN TARIFFS WORK? AN ECONOMETRIC ASSESSMENT

Presenter: Steffen Jenner, *Harvard University, USA*

REGULATING FUTURE OFFSHORE GRIDS: ECONOMIC IMPACT ANALYSIS ON WIND PARKS AND TRANSMISSION SYSTEM OPERATORS

Presenter: Lena Kitzing, *Technical University of Denmark, Denmark*

THE IMPACT OF THE EUROPEAN REGULATORY REFORMS ON THE ELECTRICITY-RELATED R&D INVESTMENTS

Presenter: Denes Kucsera, *WUWien, Austria*

CONVERGENCE ACROSS EUROPEAN ELECTRICITY WHOLESALE SPOT MARKETS: STILL A WAY TO GO

Presenter: Elisabetta Pellini, *University of Surrey, UK*

7 Energy supply and security (Room "9B")

Chair: Vincenzo Patti, *LRQA Italy, Italy*

WILL CLIMATE POLICY IMPROVE EUROPEAN ENERGY SECURITY?

Presenter: Céline Guivarch, *CIREN, France*

Co-Author(s): Adrien Vogt-Schilb, Stephanie Monjon, Julie Rozenberg

THE DEVELOPMENT OF RENEWABLE ENERGIES AND SUPPLY SECURITY: A TRADE-OFF?

Presenter: Luise Röpke, *University of Munich, Germany*

COMPETITIVENESS AND SECURITY OF A 100% RENEWABLE POWER SUPPLY SYSTEM IN EUROPE

Presenter: Yvonne Scholz, *German Aerospace Centre, Germany*

8 The challenges of nuclear power (Room "8A")

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

KAZAKHSTAN'S ENERGY SECURITY: THE ROLE OF NUCLEAR ENERGY

Presenter: Aliya Tskhay, *Doshisha University, Kazakhstan*

ECONOMICS OF HIGH TEMPERATURE REACTORS FOR INDUSTRIAL COGENERATION: A UTILITY'S PERSPECTIVE

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

Co-Author(s): Jona Hampe

INNOVATION, LEARNING OPPORTUNITIES AND NUCLEAR POWER PLANTS PERFORMANCE

Presenter: Michel Berthelemy, *Mines ParisTech - Centre of Industrial Economics (Cerna), France*

CURRENT TRENDS IN COSTS DEVELOPMENT OF PHOTOVOLTAICS VS NUCLEAR IN EUROPE

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

9 Climate change: the challenge (Room "4A")

Chair: Peter R. Hartley, *Rice University, USA*

CAN NO-LOSE TARGETS CONTRIBUTE TO A 2°C TARGET?

Presenter: Vicki Duscha, *Fraunhofer Institute of Systems and Innovation Research (ISI), Germany*

Co-Author(s): Joachim Schleich

UNCERTAINTY AND THE INTERACTION BETWEEN CLIMATE AND RENEWABLE ENERGY POLICIES

Presenter: Oskar Lecuyer, *CIREN, France*

Co-Author(s): Philippe Quirion

UNREVEALING PUBLIC PREFERENCES FOR CLIMATE CHANGE

POLICIES IN SPAIN: A HYBRID MIXTURE MODEL

Presenter: Xavier Labandeira, *University of Vigo, Spain*

Co-Author(s): Maria Loureiro and Michael Hanemann

THE WEAKNESSES OF EXISTING CARBON MARKETS TO MITIGATE CLIMATE CHANGE AND THE NEED FOR CONSUMPTION BASED CARBON REPORTING

Presenter: Madlen King, *Global Head of Climate Change for LRQA, United Kingdom*

ENDOGENOUS PARTICIPATION TO A PARTIAL CLIMATE AGREEMENT WITH OPEN ENTRY: A NUMERICAL ASSESSMENT

Presenter: Fabio Sferra, *Fondazione ENI Enrico Mattei, Italy*

Co-Author(s): Massimo Tavoni

10 The wholesale electricity market (Room "5A")

Chair: Adonis Yatchew, *University of Toronto, Canada*

ESTIMATING COST FUNCTION USING OBSERVED BID DATA IN ITALIAN WHOLESALE ELECTRICITY MARKET

Presenter: Paolo Polinori, *University of Perugia, Italy*

Co-Author(s): Carlo Andrea Bollino

MARKET POWER IN WHOLESALE ELECTRICITY MARKETS IN EUROPE: CONJECTURAL VARIATION APPROACH

Presenter: Thao Pham, *Centre of Geopolitics of Energy and Raw Materials (CGEMP), France*

ELECTRICITY DEMAND IN ITALIAN WHOLESALE MARKET

Presenter: Simona Bigerna, *University of Perugia, Italy*

CURRENT AND FUTURE IMPACTS OF RENEWABLE ENERGIES ON THE SPOT PRICE MECHANISM FOR ELECTRICITY IN GERMANY

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

Concurrent Sessions 16:00 – 17:30h

11 Energy innovation and patenting (Aula Magna)

Chair: Carla Oliveira Henriques, *INESC Coimbra, Portugal*

ENERGY R&D EXPENDITURES AND PATENTS IN SELECTED IEA COUNTRIES

Presenter: Raphael Bointner, *Vienna University of Technology, Austria*

METHODOLOGICAL PRINCIPLES FOR OPTIMAL INTEGRATION OF FUTURE TECHNOLOGIES INTO THE ENERGY SECTOR

Presenter: Arvydas Galinis, *Laboratory of energy systems research, Lithuania*

Co-Author(s): Vidas Lekavicius

OPTIMAL PLACEMENT OF DISTRIBUTED GENERATION IN DISTRIBUTION NETWORK: ANALYSIS OF ECONOMIC AND TECHNICAL EFFECTIVENESS OF INVESTMENTS

Presenter: Anna Kowalska-Pyzalska, *Wroclaw University of Technology, Poland*

CONSIDERATION ABOUT HYDROGEN FUEL CELL POWERTRAIN LEVELIZED COST OF ELECTRICITY IN THE EUROPEAN CONTEXT

Presenter: Mario Valentino Romeri, *Italy*

12 Energy efficiency in buildings (Room "7A")

Chair: Felix Kirsch, *Hochschule Niederrhein, Germany*

SCENARIOS FOR THE GERMAN HEATING AND COOLING SECTOR: A MODELLING APPROACH INTEGRATING BUILDINGS, INDUSTRY AND DISTRICT HEATING

Presenter: Lukas Kranzl, *Vienna University of Technology, Austria*

Co-Author(s): Andreas Müller, Marcus Hummel, Jan Steinbach, Andrea Herbst, Felipe Toro, Felix Reitze, Wolfgang Schulz, Max Fette, Veit Bürger

INSIGHTS ON THE RETROFIT BEHAVIOR OF MULTI-FAMILY BUILDING OWNERS BASED ON REVEALED PREFERENCES

Presenter: Martin Jakob, *TEP Energy, Switzerland*

Co-Author(s): Mehdi Farsi

MEASURING EFFICIENCY IN WHOLESALE ENERGY PRODUCTION

Presenter: Andrew Zaeske, *Centre for Environmental and Resource Economics, Sweden*

BUILDING ENERGY EFFICIENCY: CASE STUDY ROMANIA

Presenter: Monica Patricia Ardeleanu, *University of Naples Parthenope, Italy*

Co-Author(s): Florina Bran, Ildico Ioan, Cristea Popa, Carmen Valentina

13 Learning by doing: cost reductions for RES (Room "10A")

Chair: Manfred Weissenbacher, *University of Malta, Malta*

ELECTRICITY MARKET IMPLICATIONS OF VOLATILE ENERGY TECHNOLOGY INVESTMENT COSTS

Presenter: Christian Panzer, *Vienna University of Technology, Austria*

RENEWABLE ELECTRICITY GENERATION IN GERMANY: META-ANALYSIS OF LONG-TERM MITIGATION SCENARIOS

Presenter: Eva Schmid, *Potsdam Institute for Climate Impact Research, Germany*

Co-Author(s): Brigitte Knopf and Michael Pahle

SYSTEM LCOE: WHAT ARE THE COSTS OF VARIABLE RENEWABLES?

Presenter: Falko Ueckerdt, *Potsdam Institute for Climate Impact Research, Germany*

DEMAND SIDE MANAGEMENT WITH HYBRID HEATING PROCESSES: A CONTRIBUTION FOR COST EFFICIENT RENEWABLE ENERGY INTEGRATION

Presenter: Philipp Riegebauer, *ZIES Centre of Innovative Energy Systems, Germany*

14 Access to energy in Africa (Room "10B")

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

ENHANCING HOUSEHOLD FUEL CHOICE AND SUBSTITUTION IN KENYA

Presenter: Helen Osiolo, *Kenya Institute for Public Policy Research and Analysis (KIPPRA), Kenya*

ENHANCING ACCESS TO ELECTRICITY IN NIGERIA THROUGH LOW-CARBON SOLUTIONS

Presenter: Raffaello Cervigni, *The World Bank, USA*

Co-Author(s): Max Henrion, John Rogers, Felix Dayo, Asmerom Gilau and Surya Swamy

GREEN ENERGY FOR THE ARAB SPRING EMPLOYMENT FROM RENEWABLE ENERGY AND ENERGY EFFICIENCY IN TUNISIA

Presenter: Ulrike Lehr, *GWS Institute for Economic Structures*

Research, Germany

Co-Author(s): Anke Mönnig

15 Electric and alternative vehicles (Room "10C")

Chair: Bruno Lapillone, *Enerdata, France*

CONDITIONS FOR THE DEPLOYMENT OF ALTERNATIVE DRIVETRAINS: AN ENERGY SYSTEM PERSPECTIVE

Presenter: Martin Densing, *Paul Scherrer Institute, Switzerland*

Co-Author(s): Hal Turton and Georg Baeuml

ELECTRIFYING THE SWISS TRANSPORT SECTOR: ELECTRICITY AND TRANSPORT CROSS-SECTORAL TRADEOFFS

Presenter: Sebastian Moellencamp, *Paul Scherrer Institute, Switzerland*

THE COLLECTION AND RECYCLING OF ELECTRIC VEHICLES WASTE BATTERIES: THE PROS AND CONS OF AN INTEGRATED MANAGEMENT SYSTEM

Presenter: Manuel Cabugueira, *Lusófona University, Portugal*

Co-Author(s): Cátia Felisberto

16 Bioenergy for sustainable systems (Room "9A")

Chair: Albrecht Johan, *Ghent University, Belgium*

THE ROLE OF BIOENERGY IN CLIMATE CHANGE MITIGATION-ECONOMIC AND ENERGY SECURITY IMPLICATIONS

Presenter: Alessandro Chiodi, *University College Cork, Ireland*

Co-Author(s): Maurizio Gargiulo, Brian Ó Gallachóir and Paul Deane

FUTURE PERSPECTIVES OF BIOENERGY TRADE IN MODEL BASED SCENARIOS

Presenter: Julian Matzenberger, *Vienna University of Technology, Austria*

Co-Author(s): Lukas Kranzl, Vassilis Daioglou, Martin Junginger and

Eric Tromborg

EFFECTIVENESS OF BIOMASS DEVELOPMENT: LIFE-CYCLE COSTS ANALYSIS

Presenter: Tomas Kralik, *Czech Technical University, Czech Republic*

Co-Author(s): Jaroslav Knappek and Michaela Valentova

PRODUCTION OF BIOFUELS AND FOOD PRICES: SEARCHING FOR THE EMPIRICAL LINK

Presenter: Andrea Bastianin, *University of Milan Bicocca, Italy*

Co-Author(s): Marzio Galeotti and Matteo Manera

17 Hydrocarbon supplies (Room "9B")

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

MODELING PEAK OIL AND THE GEOLOGICAL CONSTRAINTS ON OIL PRODUCTION

Presenter: Frederic Reynes, *TNO, The Netherlands*

Co-Author(s): Samuel J. Okullo and Marjan Hofkes

ECONOMIC ANALYSIS OF UNDISCOVERED PETROLEUM RESOURCES IN THE UNOPENED SEA AREAS OFF THE LOFOTEN ISLANDS IN NORTHERN NORWAY: A COMBINED MONTE-CARLO AND SCENARIO PLANING APPROACH

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

Co-Author(s): Benvenutta Henriksen, Mari Kvaløy, Camilla Petterson, Anders Toft

IMPROVED RECOVERY FROM EXISTING FIELDS: A SURVEY OF DECISION CRITERIA

Presenter: Kjartan Teigen, *Norwegian Petroleum Directorate, Norway*

Co-Author(s): Petter Osmundsen

18 Re-thinking nuclear power: after Fukushima (Room "8A")

Chair: Jurgis Vilemas, *Lithuanian Energy Institute, Lithuania*

META-ANALYSIS OF EXPERT ELICITATIONS OF FUTURE TECHNOLOGY OUTCOMES FOR NUCLEAR POWER

Presenter: Elena Verdolini, *Fondazione Eni Enrico Mattei, Italy*

Co-Author(s): Laura Anadon Diaz and Gregory Nemet

POTENTIAL ROLE OF CCS IN POST-FUKUSHIMA NUCLEAR POLICY SCENARIOS UNDER CLIMATE CONSTRAINTS IN SWITZERLAND

Presenter: Nicolas Weidmann, *Paul Scherrer Institute, Switzerland*

Co-Author(s): Hal Turton

GERMANY'S NUCLEAR PHASE-OUT: IMPACTS ON ELECTRICITY PRICES

Presenter: Michael Pahle, *Potsdam Institute for Climate Impact Research, Germany*

ECONOMIC AND ENVIRONMENTAL ANALYSIS OF THE IMPACTS OF DIFFERENT NUCLEAR POWER POLICY ON POWER GENERATION SYSTEM IN JAPAN TO 2030

Presenter: Qi Zhang, *Kyoto University, Japan*

Co-Author(s): Tetsuo Tezuka and Keiichi Ishihara

19 Climate policy and emission trading (Room "4A")

Chair: Xavier Labandeira, *University of Vigo, Spain*

REDUCING THE COSTS OF COPENHAGEN CLIMATE PLEDGES IN THE POST-KYOTO WORLD: THE ROLE OF EMISSION TRADING AND REVENUE RECYCLING

Presenter: Jun Li, *CIREN, France*

COAL BASED ENERGY SECTOR AND THE NEW EMISSIONS TRADING SYSTEM

Presenter: Kaszynski Przemyslaw, *MEERI, Poland*

Co-Author(s): Wojciech Suwala and Mariusz Kudelko

RATE OF RETURN REQUIREMENT FOR CLIMATE VERSUS PETROLEUM PROJECTS

Presenter: Magne Emhjellen, *Petoro AS, Norway*

Co-Author(s): Petter Osmundsen

TRENDS TOWARDS SUSTAINABLE ENERGY DEVELOPMENT IN LITHUANIA

Presenter: Inga Konstantinavičiute, *Lithuanian Energy Institute, Lithuania*

Co-Author(s): Vaclovas Miskinis and Viktorija Bobinaite

20 The challenge for the electricity company (Room "5A")

Chair: Paolo Polinori, *University of Perugia, Italy*

INNOVATION DYNAMICS IN THE EUROPEAN AND US ELECTRICITY SUPPLY INDUSTRY

Presenter: Jens Weinmann, *ESMT European School of Management and Technology, Germany*

THE IMPACT OF INDUSTRIAL ENERGY PRICE DIFFERENCES ON BILATERAL TRADE

Presenter: Misato Sato, *London School of Economics, United Kingdom*

IMPACTS OF CLIMATE CHANGE ON THE ELECTRICITY SECTOR: AN INTEGRATED MODELLING APPROACH FOR AUSTRIA

Presenter: Thomas Schinko, *University of Graz, Austria*

Co-Author(s): Gabriel Bachner, Birgit Bednar-Fiedl, Gerald Feichtinger, Christoph Gutschi, Veronika Kulmer and Andreas Schüppel

MODELING ENERGY MARKETS USING NEURAL NETWORKS AND SPECTRAL ANALYSIS

Presenter: Rita D'Ecclesia, *University of Rome "La Sapienza", Italy*

Co-Author(s): Francesco Barcellona



Gala Dinner 19:00 – 22:30h

Boat trip to the **Torcello Island** and dinner at the "**Locanda Cipriani**" Restaurant

Torcello is an island with only a few dozens of inhabitants. The Cathedral of Santa Maria Assunta dates from the 7th century and contains beautiful Byzantine mosaics from the 11th and 12th century.

Locanda Cipriani, one of the oldest Venetian restaurant, is immersed in a beautiful garden and in an atmosphere of old days. Ernest Hemingway used to spend some time there in 1948 writing parts of *Across the River and Into the Trees*.

Meeting Point: the boats leave at 19:00h in front of the entrance of the San Giobbe Campus

Invitation ticket is required

Tuesday September 11

Concurrent Sessions 11:00 – 12:30h

21 Smart grids (Aula Magna)

Chair: Michael Steck, Research Center for Energy Economics, Germany

SMART GRIDS AS A CHALLENGE TO THE CURRENT EUROPEAN ELECTRICITY MARKET DESIGN

Presenter: Hamilcar Knops, *Delft University of Technology, The Netherlands*
Co-Author(s): Laurens De Vries

A COMPREHENSIVE FRAMEWORK FOR ECONOMIC OPTIMIZATION IN SMART ELECTRICITY GRIDS

Presenter: Dario Lucarella, *RSE S.p.A., Italy*

Co-Author(s): Massimo Gallanti and Stefano Massucco

SOCIOECONOMIC APPROACH FOR THE ALLOCATION OF SMART GRIDS INVESTMENTS

Presenter(s): Sabina Scarpellini, *CIRCE-University of Zaragoza, Spain*

Co-Author(s): Eva Llera, Abel Ortego and Miguel Marco

SMART CHARGING RESULTS FROM AN ON-ROAD TEST WITH ELECTRIC SCOOTERS

Presenter: Alexandra-Gwyn Paetz, *Karlsruhe Institute of Technology (KIT), Germany*

Co-Authors: Wolf Fichtner, Patrick Jochem, Matthias Pfriem, Frank Gauterin

22 Energy efficiency in the residential and commercial sector (Room "7A")

Chair: Massimo Filippini, ETH Zürich, Switzerland

ENERGY SAVING POTENTIAL OF TECHNICAL INSULATION

Presenter: Karin Wiesemeyer, *Forschungsinstitut für Wärmeschutz e.V., Germany*

Co-Author(s): Anna Gruber, Marco Schwentzek and Serafin von Roon

HOW DO INVESTMENTS IN HEAT PUMPS AFFECT HOUSEHOLD ENERGY CONSUMPTION?

Presenter: Bente Halvorsen, *Statistics Norway, Norway*

THE ROLE OF ENERGY PRICING IN ACHIEVING THE EU 2020 ENERGY SAVINGS GOAL IN THE RESIDENTIAL SECTOR

Presenter: Eoin Ó Broin, *Chalmers University of Technology, Sweden*

Co-Author(s): Jonas Nässén and Filip Johnsson

ANALYSING INNOVATIVE ENERGY-EFFICIENT TECHNOLOGY ADOPTIONS IN ISRAELI NON-RESIDENTIAL BUILDINGS WITHIN EARLY-MARKET PROJECT STAKEHOLDERS

Presenter: Jonathan Malachy, *University of Portsmouth, UK*

Co-Author(s): Alexandros Apostolakis

23 Financing RES (Room "10A")

Chair: Danielle Devogelaer, Federal Planning Bureau, Belgium

PRODUCTIVITY AND PENETRATION OF INTERMITTENT RENEWABLE ENERGY CAPITAL STOCK

Presenter: David Benatia, *OECD Environment Directorate, France*

Co-Author(s): Nick Johnstone and Ivan Haščić

PROMOTION OF MARKET ACCESS FOR RENEWABLE ENERGY IN THE NORDIC POWER MARKETS

Presenter: Rauli Svento, *University of Oulu, Finland*

Co-Author(s): Maria Kopsakangas-Savolainen

THE LINKAGE BETWEEN INCOME DISTRIBUTION AND CLEAN ENERGY INVESTMENTS: ADDRESSING FINANCING COST

Presenter: Nadia Ameli, *Fondazione ENI Enrico Mattei, Italy*

Co-Author(s): Daniel M. Kammen

THE MARKET VALUE OF VARIABLE RENEWABLES

Presenter: Lion Hirth, *Vattenfall Europe AG, Germany*

24 Access to energy in Asia and South America (Room "10B")

Chair: Pippo Ranci Ortigosa, University of Milan "Cattolica", Italy

HIGH EFFICIENT MULTI-FUEL SOLAR HYBRID POWER PLANTS TO EASE THE ACCESS TO ENVIRONMENTAL FRIENDLY ENERGY IN REMOTE REGIONS - THE CASE OF INDONESIA

Presenter: Witold-Roger Pogonietz, *Karlsruhe Institute of Technology, Institute for Technology Assessment and Systems Analysis, Germany*

DOES MONEY TALK? THE EFFECT OF A MONETARY ATTRIBUTE ON THE MARGINAL VALUES IN A CHOICE EXPERIMENT: AN APPLICATION TO WIND POWER IN CHILE

Presenter: Claudia Aravena, *Trinity College Dublin, Ireland*

Co-Author(s): Peter Martinsson and Riccardo Scarpa

ELECTRICITY ACCESS UNIVERSALIZATION IN BRAZIL: MEETING THE CHALLENGE OF SUSTAINABLE DEVELOPMENT

Presenter: Clarice C. de M. Ferraz, *Federal University of Rio de Janeiro, Brazil*

Co-Author(s): Carlos Augusto Amaral Hoffmann

SUSTAINABLE DEVELOPMENT IN IRAQ THE BIG CHALLENGE

Presenter: Alaa M. A. Alasady, *Eternal Fire Center for Oil Development & Buildup (EFCODB), Iraq*

25 The future of transport (Room "10C")

Chair: Andriosopulos Kostas, Company ESCP Europe Business School, United Kingdom

URBAN DYNAMICS AND ENERGY CONSTRAINTS: A FORECASTING STUDY

Presenter: Cédric Allio, *CIREN, France*

Co-Author(s): Henri Waisman and Eric Vidalenc

MACROECONOMIC ASSESSMENT OF VEHICLE CARBON

POLICIES USING A TRANSPORT CGE-MODEL FOR GERMANY

Presenter: Robert Beestermöller, *University of Stuttgart, Germany*

Co-Author(s): Jan Abrell

SHORT-TERM CAR RENTAL: HOW A NEW CAR MOBILITY SERVICE CAN CHANGE CAR OWNERSHIP?

Presenter: Amandine Chevalier, *BIPE ParisTech IFPEN, France*

LIGHT DUTY VEHICLE TRANSPORTATION AND GLOBAL CLIMATE POLICY: THE IMPORTANCE OF ELECTRIC DRIVE VEHICLES

Presenter: Thomas Longden, *Fondazione ENI Enrico Mattei, Italy*

Co-Author(s): Valentina Bosetti

26 Energy from biomass (Room "9A")

Chair: Monica Padella, Joint Research Centre, European Commission, Italy

THE OPPORTUNITY OF BIOMASS ELECTRICITY. DO THE SYSTEM BENEFITS OF BIOMASS TECHNOLOGIES COMPENSATE FOR POTENTIAL GENERATION COST DISADVANTAGES?

Presenter: Johan Albrecht, *Ghent University, Belgium*

RENEWABLE ELECTRICAL ENERGY SOURCES FROM BIOMASS IN LATVIA

Presenter: Martins Pelss, *Riga Technical University, Latvia*

Co-Author(s): Modrite Pelse and Kaspars Naglis-Liepa

POTENTIAL PROFITABILITY OF BIOMASS/BIOGAS CHP-UNITS IN CURRENT ELECTRICITY MARKETS

Presenter: André Ortner, *Technical University of Vienna, Austria*

INDIRECT LAND USE CHANGE EMISSIONS FROM BIOFUELS: QUANTIFYING THE BENEFIT AGRO-ECONOMIC MODELS DERIVE FROM REDUCED FOOD CONSUMPTION

Presenter: Monica Padella, *Joint Research Centre, European Commission, Italy*

Co-Author(s): Robert Edwards, Declan Mulligan, Luisa Marelli, Wallace E. Tyner

27 Understanding hydrocarbon prices (Room "9B")

Chair: Ugo Farinelli, AIEE, Italy

BUBBLES IN OIL PRICES - EVIDENCE AND IMPLICATIONS

Presenter(s): Marc Gronwald, *University of Munich, Germany*

CORRELATION MATTERS - A RISK ASSESSMENT OF THE OIL MARKET

Presenter: Roy Endré Dahl, *University of Stavanger, Norway*

Co-Author(s): Frank Asche

OIL MARKET DYNAMICS

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

Co-Author(s): Nathan Balke and Xin Jin

UNDERSTANDING RIG RATES

Presenter: Terje Skjerpen, *Statistics Norway, Norway*

Co-Author(s): Petter Osmundsen and Knut Einar Rosendahl

28 CCS and innovation: opportunity for the future (Room "8A")

Chair: Carlo Di Primio, *AIEE, Italy*

TESTING ALTERNATIVE LEARNING-BY DOING SPECIFICATIONS FOR MARINE ELECTRICITY GENERATION IN A CGE MODEL FOR SCOTLAND
Presenter: Marie Tamba, *University of Strathclyde, UK*

THE ROLE OF CCS IN THE IBERIAN PENINSULA: CONTRIBUTION FOR A REGIONAL ROADMAP

Presenter: Patricia Fortes, *CENSE - New University of Lisbon, Portugal*

Co-Author(s): Júlia Seixas, Maryse Labriet, Maurizio Gargiulo, Joao Gouveia

29 Climate policy and technology mix (Room "4A")

Chair: Richard Green, *Imperial College Business School, United Kingdom*

CLIMATE POLICY AND SUSTAINABILITY: A CGE ASSESSMENT

Presenter: Fabio Eboli, *Fondazione ENI Enrico Mattei, Italy*

Co-Author(s): Carlo Carraro, Marinella Daude, Lorenza Campagnolo, Elisa Lanzi and Ramiro Parrado

MINIMUM REGRET CLIMATE POLICY WITH ACT-THEN-LEARN DECISION: A NEW MODEL FRAMEWORK UNDER LONG-TERM UNCERTAINTIES

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

Co-Author(s): Takehiko Matsuo and Masashi Ohkura

TOWARD NEW CLIMATE REGIME (1) MITIGATION OF GLOBAL WARMING BY OPTIMUM ENERGY MIXTURE

Presenter: Fengjun Duan, *The Canon Institute for Global Studies, Japan*

Co-Authors: Hiroshi Ujita and Tetsuo Yuhara

TOWARD NEW CLIMATE REGIME (2) ENERGY ISSUE AFTER THE FUKUSHIMA DAIICHI ACCIDENT

Presenter: Hiroshi Ujita, *Tokyo Institute of Technology Department of Nuclear Engineering, Japan*

Co-Authors: Fengjun Duan, Toshikazu Shindoh

FEASIBILITY AND ISSUES OF SMART COMMUNITY IN JAPAN

Presenter: Yoshiki Ogawa, *Tokyo University, Japan*

30 The feed-in-tariff and the electricity price (Room "5A")

Chair: Diego Comin, *Harvard University, USA*

THE INFLUENCE OF LARGE SCALE PHOTOVOLTAIC POWER ON THE SPOT MARKET ELECTRICITY PRICES

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

Co-Author(s): Thomas Martinsen and Åsa Grytli Tveten

RESIDUAL DEMAND MODELING AND APPLICATION TO ELECTRICITY PRICING

Presenter: Andreas Wagner, *Fraunhofer ITWM, Germany*

HOW DEVELOPERS OF OFFSHORE WIND FARMS DEAL WITH THE AVOID/REDUCE/OFFSET HIERARCHY? A STATE OF THE ART IN NORTHERN EUROPEAN COUNTRIES

Presenter: Anne-Charlotte Vaissière, *Ifremer - UMR AMURE, France*

Co-Author(s): Harold Levrel

A THEORY OF DIRECTIONAL PRICING FOR THE FEED-IN TARIFF POLICY IN ELECTRICITY

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

Co-Author(s): Makiko Nagaya

Concurrent Sessions 16:00 - 17:30h

31 Smart meters (Aula Magna)

Chair: Dario Lucarella, *RSE S.p.A., Italy*

ENERGY SAVING POTENTIALS OF PRIVATE ELECTRICITY CONSUMPTION BY FEEDBACK AND CONSULTING

Presenter: Anna Gruber, *Forschungsgesellschaft für Energiewirtschaft mbH, Germany*

Co-Author(s): Serafin Von Roon, Marco Schwentzek, Johannes Frei and Martin Schönnach

LIBERALIZATION OF METERING ACTIVITIES AND COMPETITION IN SMART METERS DEPLOYMENT CONTEXT: THE CASE OF GERMANY AND UK

Presenter: Claire Bergaentzlé, *EDDEN-LEPIL CNRS, France*

EFFECTS OF FEEDBACK ON RESIDENTIAL ELECTRICITY DEMAND- RESULTS FROM A SMART METERING FIELD EXPERIMENT TRIAL IN AUSTRIA

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

Co-Author(s): Marian Klobasa and Sebastian Götz

FINDING THE SMARTEST SMART METERS FOR CENTRAL ASIAN ENERGY SECTOR

Presenter: Malika Saidkhodjaeva, *Institute of Economics, Uzbekistan*

32 General aspects of energy saving in industry (Room "7A")

Chair: Christophe Bonnery, *AREVA, France*

THE GERMAN ENERGY AUDIT PROGRAM AND THE ADOPTION OF ENERGY EFFICIENCY MEASURES BY SMALL AND MEDIUM-SIZED FIRMS
Presenter: Tobias Fleiter, *Fraunhofer Institute for Systems and Innovation Research, Germany*

Co-Author(s): Joachim Schleich, Ployplearn Ravivanpong, Edelgard Gruber

DIFFUSION OF ENERGY SAVING TECHNOLOGIES THROUGH FOREIGN DIRECT INVESTMENT: EMPIRICAL EVIDENCE FROM INDONESIA MANUFACTURING

Presenter: Ying Yang, *University of Tokyo, Japan*

Co-Author(s): Yasuyuki Todo

INFLUENCE OF ENERGY EFFICIENCY MEASURES ON THE POTENTIAL OF LOAD TRANSFER

Presenter: Sebastian Peraus, *IFE, Germany*

Co-Author(s): Anna Gruber and Serafin von Roon

The impact of PV on the merit order (Room "10A")

Chair: G.B. Zorzoli, *ISES Italia, Italy*

A COMPARISON OF MERIT ORDER EFFECTS OF PV AND CCS
Presenter: Stefan Vögele, *Forschungszentrum Jülich IEK-STE, Germany*

Co-Author(s): Dirk Rübbecke

EFFECTS OF THE AUSTRIAN SUBSIDY SCHEME FOR SMALL SCALE PV-SYSTEMS ON PRICES AND MARKET DEVELOPMENT
Presenter: Michael Hartner, *Vienna University of Technology, Austria*

Co-Author(s): Reinhard Haas

ECONOMIC CONDITIONS TO ACHIEVING THE DYNAMIC PV GRID PARITY IN THE RESIDENTIAL SECTOR IN DIFFERENT EUROPEAN COUNTRIES

Presenter: Georg Lettner, *Vienna University of Technology, Austria*

Co-Author(s): Hans Auer

34 The 'resource curse' (Room "10B")

Chair: Edmar Luiz De Almeida, *Federal University of Rio de Janeiro, Brazil*

RE-IDENTIFYING THE REBOUND: WHAT ABOUT ASYMMETRY?

Presenter: Colin Vance, *Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany*

Co-Author(s): Manuel Frondel

LIVING UP TO EXPECTATIONS: ESTIMATING DIRECT AND INDIRECT REBOUND EFFECTS FOR UK HOUSEHOLDS

Presenter: Mona Chitnis, *University of Surrey, UK*

Co-Authors: Steve Sorrell, Angela Druckman and Steven Firth

WHAT DRIVES GREEN INVESTMENTS AND INNOVATION? AN INTEGRATED ASSESSMENT OF POPULATION, ECONOMIC GROWTH, AND FOSSIL FUEL RESOURCE AVAILABILITY
Presenter: Enrica De Cian, *Fondazione ENI Enrico Mattei, Italy*

Co-Author(s): Massimo Tavoni, Fabio Sfera

HEDGING GOLD AND OIL PORTFOLIOS IN DIFFERENT REGIMES

Presenter: Ning Rong, *Macquarie University Sydney, Australia*

Co-Author(s): Trueck Stefan

35 The perspective of the gas sector (Room "10C")

Chair: Euan Phimister, *University of Aberdeen, UK*

PERSPECTIVES OF THE RUSSIAN-EUROPEAN NATURAL GAS MARKET

Presenter: Oleg Eismont, *Higher School of Economics, Russian Federation*

INJECTING GREEN GAS INTO THE GRID, DUTCH EXAMPLE

Presenter: Anna Butenko, *DNV KEMA Energy and Sustainability, The Netherlands*

Co-Author(s): Maroeska Boots and Johan Holstein

TURKISH NATURAL GAS CONSUMPTION'S ROLE IN EU ENERGY DIVERSIFICATION: THE NABUCCO PROJECT'S ILL-CONSIDERED FOE, "TURKISH CONSUMPTION"

Presenter: Sarp Ozkan, *IFP School, France*

Co-Author(s): Arash Farnoosh and Emmanuel Hache

THIRD PARTY ACCESS TO INFRASTRUCTURE AND THE FUTURE RECOVERY OF OIL AND GAS RESERVES IN THE UKCS

Presenter: Euan Phimister, *University of Aberdeen, UK*

Co-Author(s): Alexander Kemp and Linda Stephen

36 Wind energy (Room "9A")

Chair: Christian Panzer, *Vienna University of Technology, Austria*

WIND POWER INNOVATION AND POLICY IN EUROPE: A PATENT DATA APPROACH

Presenter: Åsa Lindman, *Luleå University of Technology, Sweden*

Co-Author(s): Patrik Söderholm and Robert Lundmark

IMPACT OF WIND POWER RESERVE REQUIREMENTS ON SYSTEM OPERATION AND COSTS

Presenter: Kristof De Vos, *KU LEUVEN, Belgium*

Co-Author(s): Johan Driesen

HOW LARGE SHOULD A PORTFOLIO OF WIND FARMS BE?

Presenter: Richard Green, *Imperial College Business School, UK*

Co-Author(s): Iain Staffell

37 Effects of hydrocarbon prices (Room "9B")

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

ON THE LINK BETWEEN OIL PRICE AND EXCHANGE RATE: A TIME-VARYING VAR PARAMETER APPROACH

Presenter: Emmanuel Hache, *IFP School, France*

Co-Author(s): Vincent Bremond and Tovonony Razafindrabe

STRATEGIC BEHAVIOR IN THE CRUDE OIL MARKET: ONE-STAGE VS. TWO-STAGE OLIGOPOLY MODELS

Presenter: Clemens Haftendorn, *DIW Berlin, Germany*

Co-Author(s): Daniel Huppmann

ANALYSIS OF OIL FUTURES RETURNS WITH MACRO FACTORS

Presenter: Yannick Le Pen, *University Paris-Dauphine, France*

Co-Author(s): Benoît Sévi

GLOBAL FOSSIL ENERGY MARKETS AND CLIMATE CHANGE MITIGATION: AN ANALYSIS WITH REMIND

Presenter: Nico Bauer, *Potsdam Institute for Climate Impact Research, Germany*

Co-Author(s): Ioanna Mouratiadou, Gunnar Luderer, Robert Brecha, Lavinia Baumstark and Elmar Kriegler

38 Energy storage: general aspects (Room "8A")

Chair: Federico Santi, *Fondazione Energia, Italy*

FUTURE VIABILITY OF ENERGY STORAGES AND OTHER LOW-CARBON OPTIONS FOR BALANCING DEMAND AND SUPPLY OF ELECTRICITY

Presenter: Bert Droste-Franke, *Europäische Akademie Bad Neuenahr-Ahrweiler GmbH, Germany*

A NEW MODEL FOR ANALYZING RENEWABLE ENERGY INTEGRATION IN GERMANY

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

CONTRIBUTION OF BULK ENERGY STORAGE AND TRANSMISSION INTERCONNECTORS TO MITIGATE VARIABILITY CAUSED BY LARGE-SCALE RES-ELECTRICITY GENERATION IN FUTURE ENERGY SYSTEMS

Presenter: Karl Anton Zach, *Vienna University of Technology, Austria*

Co-Author(s): Hans Auer

39 Financing transition to low-carbon economy (Room "4A")

Chair: Fereidoon Sioshansi, *Menlo Energy Economics, USA*

ENVIRONMENTAL FOOTPRINT (CARBON WATER WASTE) AS MONITORING TOOL IN COSTS AND SUPPLY CHAIN: TRENDS AND ADVANTAGES OF THE SUSTAINABLE MODEL

Presenter: Elena Cervasio, *Lloyd's Register Quality Assurance Italy, Italy*

THE IMPACT OF PRIVATE INTEREST CONTRIBUTIONS ON ENERGY POLICY MAKING TRADE AND THE ENVIRONMENT

Presenter: Lotte Ovaere, *KU Leuven, Belgium*

ECONOMIC IMPLICATION OF REDUCING CO2 EMISSIONS FROM ENERGY USE IN BRAZIL

Presenter: Govinda R. Timilsina, *The World Bank, USA*

Co-Author(s): Yen Henry Chen

40 The elements of influence on electricity price (Room "5A")

Chair: Vittorio De Martino, *AIEE, Italy*

IMPACT OF CARBON PRICE ON THE INTEGRATING EUROPEAN ELECTRICITY MARKET

Presenter: Piia Aatola, *Government Institute for Economic Research, Finland*

Co-Author(s): Markku Ollikainen and Anna Toppinen

A COMPARISON OF TAXES AND OTHER SYSTEM CHARGES ON ELECTRICITY PRICES IN EUROPE

Presenter: Cecilia Camporeale, *AIEE, Italy*

Co-Author(s): Nino G.B. Morgantini and Alessandro Purpura

INFLUENCE OF CLIMATE FACTORS ON THE ELECTRICITY PRICE: AN ECONOMETRIC ANALYSIS ON THE DUTCH MARKET OVER 2006-2011

Presenter: Machiel Mulder, *Netherlands Competition Authority, The Netherlands*

FUEL DEPENDENT CARBON PRICING

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

Concurrent Sessions 17:30 - 19:00h**41 Sustainable communities and citizen-led activities (Aula Magna)**

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

THE COVENANT OF MAYORS: AN EVALUATION OF DIFFERENT CITIES' APPROACHES IN CITIZENS' INVOLVEMENT TOWARDS CHANGING ENERGY CONSUMERS BEHAVIOUR

Presenter: Ornella Cosomati, *SENSD, UK*

Co-Author(s): Alberto G. Pincherle

THE POTENTIAL FOR SUSTAINABLE COMMUNITIES IN ASIA: THE CASE OF SINGAPORE

Presenter: Eulalia Han, *National University of Singapore, Singapore*

ENERGY TARIFF SYSTEM AND THE PROTECTION OF CUSTOMERS IN THE EASTERN EUROPEAN COUNTRIES

Presenter: Marzena Czarnecka, *University of Economics Katowice, Poland*

SUSTAINABLE DEVELOPMENT INDICATORS FOR ENERGY CDM PROJECTS

Presenter: Parameswaran Iyer, *CEPT University, India*

42 Market instruments for energy efficiency (Room "7A")

Chair: Othman Cole, *ESCP Europe Business School, UK*

ESCORTING THE MARKET - POLICY MEASURES TO TAP THE HOUSEHOLD HEATING MARKET EFFICIENCY POTENTIALS

Presenter: Mr Klaas Bauermann, *University of Duisburg-Essen, Germany*

Co-Author(s): Christoph Weber

AN INTEGRATED APPROACH FOR ENERGY EFFICIENCY ANALYSIS IN EUROPEAN UNION COUNTRIES

Presenter: Giorgia Makridou, *Technical University of Crete, Greece*

Co-Author(s): Kostas Andriosopoulos, Michael Doumpos, Costantin Zopounidis

ATTENTION, MEDIA AND FUEL EFFICIENCY

Presenter: Stefan Thoenes, *University of Cologne, Germany*

Co-Author(s): Timo Gores

IMPROVING CARBON EFFICIENCY: IS ECONOMIC GROWTH SO FAVOURABLE?

Presenter: Othman Cole, *ESCP Europe Business School, UK*

Co-Author(s): Kostas Andriosopoulos and Patrick Gougeon

43 Integration of RES in electricity market: impact (Room "10A")

Chair: Rauli Svento, *University of Oulu, Finland*

ANALYSIS OF PHOTOVOLTAIC SYSTEMS: AN INTEGRATED AND GENERAL PERSPECTIVE

Presenter: Dulce Coelho, *Polytechnic Institute of Coimbra, Portugal*

Co-Author(s): Carla Oliveira Henriques and Patrícia Pereira da Silva

RESPONSIVE ADJUSTMENT OF FEED-IN TARIFFS TO DYNAMIC PV TECHNOLOGY DEVELOPMENT

Presenter: Thilo Grau, *DIW Berlin, Germany*

INTERACTIONS BETWEEN RENEWABLE ELECTRICITY GENERATION AND EMISSIONS TRADING IN AN ENLARGED EUROPE

Presenter: Russell McKenna, *Karlsruhe Institute for Technology, Germany*

Co-Author(s): Dominik Möst and Wolf Fichtner

WILL WIND KILL ENERGY ONLY ELECTRICITY MARKETS?

Presenter: Stephen Poletti, *University of Auckland, New Zealand*

Co-Author(s): David Young, Oliver Browne and Julian Tollestrup

44 Energy poverty in developed countries: general aspects (Room "10B")

Chair: Peter McGregor, *University of Strathclyde, UK*

ALLOCATION OF FREE ELECTRICITY IN FUNCTION OF HOUSEHOLD SIZE TO ENCOUNTER FUEL POVERTY: GOOD POLICY? AN ASSESSMENT OF THE FLEMISH EXAMPLE IN BELGIUM

Presenter: Mohamed Al Marchohi, *University of Antwerp, Belgium*

Co-Author(s): Annemie Bollen and Peter Van Humbeeck

ENERGY POVERTY IN DEVELOPED COUNTRIES: EUROPEAN LESSONS FOR US, US LESSONS FOR EUROPE?

Presenter: Jerrold Oppenheim, *Democracy And Regulation, UK*

Co-Author(s): Theo MacGregor

IMPLEMENTING FUEL POVERTY POLICY: THE CHALLENGE OF IDENTIFICATION OF FUEL POOR HOUSEHOLDS

Presenter: Ute Dubois, *Institut Supérieur de Gestion, France*

TRADE AND ENVIRONMENT ANALYZING AGGREGATE, NATIONAL AND SECTORAL ENERGY INTENSITY IN THE EUROPEAN UNION - AN APPLICATION OF THE WIOD DATABASE

Presenter: Michael Schymura, *Centre for European Economic Research (ZEW), Germany*

Co-Author(s): Andreas Löschel

45 The formation of gas price (Room "10C")

Chair: Giovanni Urga, *Cass Business School, UK, Bergamo University, Italy*

THE FUNDAMENTAL AND SPECULATIVE COMPONENTS OF THE OIL SPOT PRICE: A REAL OPTION VALUE APPROACH

Presenter: Claudio Dicembrino, *ENEL S.p.A., Italy*

Co-Author(s): Pasquale Lucio Scandizzo

THE STRUCTURE OF THE OIL/GAS PRICE RELATIONSHIP

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

Co-Author(s): Frank Asche and Petter Osmundsen

MEASURING VOLATILITY SPILLOVER BETWEEN NATURAL GAS FUTURES AND FORWARD CONTRACTS: A EUROPEAN PERSPECTIVE

Presenter: Giovanni Urga, *Cass Business School, UK*

Co-Author(s): Marianna Russo and Alessandro Lanza

46 Energy modeling (Room "9A")

Chair: Manuel Carbugueira, *Lusófona University, Portugal*

MENFIS, AN ENERGY-ECONOMY MODEL TO ASSESS ENERGY SAVINGS POLICIES IN THE FRENCH RESIDENTIAL SECTOR.

Presenter(s): Philippe Quirion, *CIREN, France*

Co-Author(s): Marie-Laure Nauleau and Gael Collonnet

ITALIAN NATURAL GAS INFRASTRUCTURE: ANALYSIS OF FUTURE SCENARIOS BASED ON TIMES MODEL (INGI-TM)

Presenter: Antonio Taglia, *Altran Italia, Italy*

Co-Author(s): Stephen Mark Allen, Rocco De Miglio, Maurizio Gargiulo

DIRECT AIR CAPTURE: A MODEL BASED ASSESSMENT

Presenter: Massimo Tavoni, *Fondazione ENI Enrico Mattei, Italy*

Co-Author(s): Chen Chen

THE MULTIREGIONAL ENERGY SYSTEM MODEL: MONET A

COMPREHENSIVE TOOL FOR ENERGY-ENVIRONMENTAL

ANALYSIS AT BOTH REGIONAL AND NATIONAL LEVEL IN ITALY

Presenter: Rocco De Miglio, *E4SMA srl, Italy*

Co-Author(s): Maurizio Gargiulo, Alberto Gelmini and Fabio Lanati

47 The roadmap approach: general considerations (Room "9B")

Chair: Knut Einar Rosendahl, *Statistics Norway, Norway*

AN ELECTRICITY MARKET MODEL WITH GENERATION

CAPACITY EXPANSION UNDER UNCERTAINTY

Presenter: Andreas Schroeder, *DIW Berlin, Germany*

Co-Author(s): Thure Traber

ELECTRICITY GENERATION AND TRANSMISSION CAPACITY EXPANSION: AN APPLICATION TO THE CENTRAL EUROPEAN REGION

Presenter: Maximilian Bracke, *DIW Berlin, Germany*

Co-Author(s): Andreas Schröder, Pao-Yu Oei and Clemens Gerbaulet

WHEN STARTING WITH THE MOST EXPENSIVE OPTIONS MAKES SENSE: USE AND MISUSE OF MARGINAL ABATEMENT COSTS CURVES

Presenter: Adrien Vogt-Schilb, *CIREN, France*

Co-Author(s): Stephane Hallegatte

STRATEGIC TECHNOLOGY POLICY AS SUPPLEMENT TO RENEWABLE ENERGY STANDARDS

Presenter: Knut Einar Rosendahl, *Statistics Norway, Norway*

Co-Author(s): Carolyn Fischer and Mads Greaker

48 Energy storage: technology and its effect (Room "8A")

Chair: Huei-chu Liao, *TamKang University, Taiwan*

THE FINANCIAL IMPACT OF AN ELECTRICITY STORAGE IN A HYBRID ELECTRICITY PRODUCTION SYSTEM

Presenter: Alain Galli, *MINES-PARISTECH, France*

Co-Author(s): Margaret Armstrong and Assaad Zoughaib

ECONOMIC ASSESSMENT OF A STATIONARY BATTERY STORAGE SYSTEM PARTICIPATING IN ENERGY AND CONTROL ENERGY MARKETS

Presenter(s): Wolfgang Prügler, *Vienna University of Technology, Austria*

Co-Author(s): Rusbeh Rezanian

ECONOMICS AND OPERATION OF FOSSIL-FIRED POWER PLANTS IN THE GERMAN ELECTRICITY MARKETS WITH HIGH SHARES OF RENEWABLE ELECTRICITY GENERATION AND EMISSION TRADING SCHEMES

Presenter: Günther Körbler, *Vienna University of Technology, Austria*

Co-Author(s): Alexandra Juranitsch, Hans Auer and Georg Lettner

IMPACT OF CLIMATE CHANGE AND ELECTRICITY MARKET
LIBERALIZATION ON HYDROPOWER PLANTS WITH RESERVOIR
Presenter: Ludovic Gaudard, *University of Geneva, Switzerland*

49 GHG emission limitation regime (Room "4A")

Chair: David Newbery, *University of Cambridge, United Kingdom*

GREENHOUSE GAS EMISSION MITIGATION PLAN FOR THE STATE
OF ISRAEL: STRATEGIES, INCENTIVES AND REPORTING

Presenter: Ofira Ayalon, *University of Haifa, Israel*

Co-Author(s): Miriam Lev-On and Perry P. Lev-On

MITIGATION COSTS IN SECOND-BEST ECONOMIES: TIME
PROFILE OF EMISSIONS REDUCTIONS AND SEQUENCING OF
ACCOMPANYING MEASURES

Presenter: Meriem Hamdi-Cherif, *CIREN, France*

Co-Author(s): Henri Waisman, Celine Guivarch, Jean-Charles Hourcade

RESEARCH ON CHINA'S SUB-REGIONAL CARBON EMISSIONS
INTENSITY AND ECONOMIC DEVELOPMENT

Presenter: Hong Mi, *Zhejiang University, China*

Co-Author(s): Wei Zhou and Wenxuan Zhang

THE CLEAN-DEVELOPMENT-MECHANISM, STOCHASTIC PERMIT
PRICES AND ENERGY INVESTMENTS

Presenter: David Schüller, *University of Duisburg-Essen, Germany*

Co-Author(s): Philipp Hieronymi

50 Reflections on electricity market (Room "5A")

Chair: Hans Auer, *Vienna University of Technology, Austria*

IMPACT OF A MANDATORY TIME-OF-USE TARIFF ON THE ITALIAN
RESIDENTIAL CUSTOMERS

Presenter: Simone Maggiore, *RSE S.p.A., Italy*

Co-Author(s): Michele Benini, Walter Grattieri and Massimo Gallanti

ENERGY STORAGE DEPLOYMENT BETWEEN MARKET-BASED
AND RATE-BASED APPLICATIONS. AN ANALYSIS OF THE ITALIAN
CONTEXT

Presenter: Angelamaria Groppi, *Politecnico di Milano, Italy*

ENERGY STORAGE AND ITS EFFECTS ON THE SPANISH ELEC-
TRICITY MARKETS

Presenter: Ignacio Hidalgo González, *TECNALIA, Spain*

Co-Author(s): Jacek Kamiński

AN EMPIRICAL ANALYSIS ON IMPACT OF TIME-OF-USE RATE
ON HOUSEHOLD ELECTRICITY SAVING BEHAVIOUR UNDER
POWER SHORTAGE AND DIFFUSION POTENTIAL OF
TIME-OF-USE RATE

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



20.30 – 22.30h

Conference Dinner at Ca' Foscari Palace court yard (address: Dorsoduro 3246, Venice)

Ca' Foscari Palace is the administrative seat of Ca' Foscari University. It is one of the most imposing buildings of the city and its external courtyard is the biggest courtyard of a private house after the one of the Doge's Palace.

The dinner will open with the IAEE Ceremony Award

Participants are invited to reach the location on their own. Please see the map at the end of the programme.

Invitation ticket is required

Wednesday, September 12

Concurrent Sessions 09:00 - 10:30h

51 Sustainable development and economic growth

(Aula Magna)

Chair: Jacek Kaminski, *Mineral and Energy Economy Research
Institute, Poland*

IMPACT OF ECONOMIC RECESSION ON THE COSTS OF CLIMATE
MITIGATION

Presenter: Maurizio Gargiulo, *E4SMA srl, Italy*

Co-Author(s): Alessandro Chiodi, Brian Ó Gallachóir and Paul Deane

FORECASTING JOB CREATION FROM RENEWABLE ENERGY
DEPLOYMENT THROUGH A VALUE-CHAIN APPROACH

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

Co-Author(s): Sabina Scarpellini and Eva Llera

EFFICIENCY OF RENEWABLE ENERGY SUPPORT SYSTEMS

Presenter: Grzegorz Peszko, *EBRD, UK*

Co-Author(s): Janina Ketterer

ECONOMIC RECOVERY AND THE EVOLUTION OF ENERGY
DEMAND: STRATEGIES ADOPTED TO OVERCOME THE CRISIS
AND THEIR CONSEQUENCES IN ENERGY DEMAND

Presenter: Erika Cunha Ferreira Gomes, *CPFL Energia, Brazil*

Co-Author(s): Marina Lairé

52 Energy efficiency: country studies (Room "7A")

Chair: Nolan Ritter, *Rheinisch-Westfälisches Institut für
Wirtschaftsforschung, Germany*

A REVIEW OF ENERGY EFFICIENCY OBLIGATION SCHEMES IN
AUSTRALIA

Presenter: Regina Betz, *University of NSW, Australia*

Co-Author(s): Paul Twomey, Martin Jones and Iain MacGill

DETERMINANTS OF ENERGY-EFFICIENT RENOVATION
DECISIONS OF SLOVENIAN HOMEOWNERS

Presenter: Nevenka Hrovatin, *University of Ljubljana, Slovenia*

Co-Author(s): Massimo Filippini and Jelena Zoric

ENERGY EFFICIENCY IN THE HOME AND THE ROLE OF
INFORMATION: DO PROFESSIONAL ENERGY CONSULTANTS
MITIGATE THE ENERGY EFFICIENCY GAP?

Presenter: Celine Ramseier, *ETH-Zurich, Switzerland*

Co-Author(s): Anna Alberini and Filippini Massimo

53 Citizen and market instruments for efficiency (Room "10A")

Chair: Dulce Coelho, *ISE-Polytechnic Institute of Coimbra,
Portugal*

THE PUBLIC-PRIVATE ENERGY PARTNERSHIP: FIRST
EXPERIENCE FEEDBACK

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

Co-Author(s): Kleber Pinto-Silva and Cathy Zandra-Veil

ECONOMIC POTENTIAL OF DEMAND RESPONSE AT HOUSEHOLD
LEVEL—ARE CENTRAL-EUROPEAN MARKET CONDITIONS SUFFI-
CIENT?

Presenter: Natalie Prüggl, *University of Applied Sciences Technikum*

INFORMATION EFFECTS IN VALUATION OF ELECTRICITY AND
WATER SERVICE ATTRIBUTES USING CONTINGENT VALUATION
METHOD

Presenter: Akcura Elcin, *University of Cambridge, UK*

ITALIAN WHITE CERTIFICATES: WHICH WAY FOR GROWTH?

Presenter: Alberto Pincherle, *AIEE, Italy*

54 Energy poverty in developed countries: some experiences (Room "10B")

Chair: Andrea Bigano, *Fondazione ENI Enrico Mattei, Italy*

ALLEVIATING FUEL POVERTY IN HUNGARY THROUGH RESIDENTIAL ENERGY EFFICIENCY: A SOCIAL COST-BENEFIT ANALYSIS.

Presenter: Diana Ürge-Vorsatz, *Central European University (CEU), Hungary*

Co-Author(s): Sergio Tirado Herrero and Jonathan D. Healy

FUEL POVERTY AND UNEMPLOYMENT IN SPAIN

Presenter: Sergio Tirado Herrero, *Central European University (CEU), Hungary*

Co-Author(s): Sergio Mancheno Losa and Jose LuisLopes Fernandez

NECESSITY OR LUXURY GOOD? HOUSEHOLD ENERGY SPENDING AND INCOME IN BRITAIN 1991-2007

Presenter: Helena Meier, *University of Cologne, Germany*

Co-Author(s): Tooraj Jamasb and Luis Orea

55 The evolution of the gas market (Room "10C")

Chair: Laurens De Vries, *Delft University of Technology, The Netherlands*

SMART GAS, SMART REGULATION? AN ANALYSIS OF THE IMPACT RELATED TO THE INTRODUCTION OF SMART METERS IN THE DISTRIBUTION OF NATURAL GAS

Presenter: Francesco Napoli, *University of Rome "La Sapienza", Italy*

Co-Author(s): Giacomo Selmi, Antonio Sileo and Ugo Stecchi

THE IMPACT OF A DYNAMICAL GAS-PRICING MECHANISM ON THE GAS DEMAND AT DISTRIBUTION LEVEL

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

Co-Author(s): Juliana Zapata Riveros, Nico Keyaerts and William D'haeseleer

INTERNATIONAL NATURAL GAS MARKET INTEGRATION

Presenter: Ronald D. Ripple, *Curtin University, Australia*

Co-Author(s): Raymond Li and Roselyne Joyeux

MARKET ENTRY AND VERTICAL INTEGRATION IN NATURAL GAS MARKETS

Presenter: Vigen Nikogosian, *Centre for European Economic Research (ZEW), Germany*

Co-Author(s): Jürgen Weigand

56 A model analysis of the energy sector (Room "9A")

Chair: Christoph Weber, *University of Duisburg-Essen, Germany*

LONG TERM ASSESSMENT OF CRITICAL FACTORS AFFECTING THE RELIABILITY OF TRANSMISSION GRIDS

Presenter: João Gomes-Mota, *Gomes-Mota, Portugal*

Co-Author(s): Luis Campos Pinto, Francisco Azevedo and Jorge Casaca

A MODEL-BASED ANALYSIS OF THE EFFECTS OF INTEGRATING THE AVIATION INDUSTRY IN THE EU ETS

Presenter: Tobias Heffels, *Karlsruhe Institute of Technology, Germany*

Co-Author(s): Russell McKenna and Wolf Fichtner

57 The roadmap approach on RES (Room "9B")

Chair: Carlo Manna, *ENEA, Italy*

BIOMASS POTENTIAL TO SECURE ENERGY NEEDS IN CRITICAL SITUATIONS: METHODS AND THE CASE EXAMPLE OF THE CZECH REPUBLIC

Presenter: Jaroslav Knappek, *Czech Technical University in Prague, Poland*

Co-Author(s): Michaela Valentova, Jiri Vasicek and Kamila Vavrova

A 100% RENEWABLE ENERGY SYSTEM IN BELGIUM BY 2050, ASSESSMENT OF DIFFERENT LONG TERM TRAJECTORIES TO TRANSFORM THE CURRENT BELGIAN ENERGY SYSTEM INTO A 100% RENEWABLE ENERGY MIX

Presenter: Danielle Devogelaer, *Federal Planning Bureau, Belgium*

Co-Author(s): Dominique Gusbin, Wouter Nijs, Jan Duerinck, Yves Marenne and Marco Orsini

CHINESE RENEWABLE ENERGY TECHNOLOGY EXPORTS: THE ROLE OF POLICY, MARKETS AND INNOVATION.

Presenter: Felix Groba, *DIW Berlin, Germany*

Co-Author(s): Jing Cao

LOW CARBON ROADMAP FOR PORTUGAL: TECHNOLOGY ANALYSIS

Presenter: Luís Dias, *CENSE - Universidade Nova de Lisboa, Portugal*

Co-Author(s): Patricia Fortes, Júlia Seixas, and Joao Gouveia

58 In depth view of energy modelling (Room "8A")

Chair: Marco Antonio Fidelis *National Agency for Petroleum, Natural Gas and Biofuels, Brazil*

CONVERGENCE AND INTEGRATION OF REGIONAL GAS MARKETS. THE ROLE OF LIQUID NATURAL GAS (LNG)

Presenter: Arnaldo Orlandini, *Univesidad Complutense de Madrid, Spain*

THE FUTURE OF THE EASTERN MEDITERRANEAN REGION NATURAL GAS ALLIANCES IN THE AFTERMATH OF THE ARAB SPRING

Presenter: Valeria Barbi, *Fondazione Eni Enrico Mattei, Italy*

QUANTITATIVE ANALYSIS OF CONNECTION BETWEEN LNG TERMINALS FOR EFFECTIVE UTILIZATION OF LNG

Presenter: Miki Tsutsui, *Central Research Institute of Electric Power Industry, Japan*

A MODEL FOR NETWORK OPTIMIZING IN THE NATURAL GAS INDUSTRY: THE CASE OF BRAZIL

Presenter: Marco Antonio Fidelis, *National Agency for Petroleum, Natural Gas and Biofuels - Brazil*

Co-Author(s): Daniel Monnerat Gorodicht, Melissa Cristina Mathias, Luciano Veloso and Guilherme Biasi

59 Towards a low-carbon economy (Room "4A")

Chair: Einar Hope, *Norwegian School of Economics & Business Administration, Norway*

THE USE OF WASTE HEAT STREAMS AS AN ENERGY

RESOURCE IN A ROTARY BURNER IN CEMENT INDUSTRY

Presenter: Adem Atmaca, *GAUN, Turkey*

Co-Author(s): Recep Yumrutas

NEGATIVE EMISSIONS AND AMBITIOUS CLIMATE POLICIES IN A SECOND BEST WORLD: A GENERAL EQUILIBRIUM ASSESSMENT OF TECHNOLOGY OPTIONS IN THE ELECTRICITY SECTOR.

Presenter: Ruben Bibas, *CIREC, France*

Co-Author(s): Aurelie Méjean

CARBON LEAKAGE: THE IMPORTANCE OF OPEC'S BEHAVIOUR

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

Co-Author(s): Christoph Böhringer and Knut Einar Rosendahl

60 Integration of electricity market (Room "5A")

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

THE OPTIMIZATION OF THE DISTRIBUTION OF INVESTMENT RESOURCES AT THE DEVELOPMENT OF ENERGY NETWORK

Presenter: Jerzy Szkutnik, *Częstochowa University of Technology, Poland*

Co-Author(s): Anna Gawlak

AMIRIS - AN AGENT-BASED SIMULATION MODEL FOR THE ANALYSIS OF MARKET INTEGRATION OF RENEWABLE ENERGY UNDER VARIOUS FRAMEWORKS

Presenter: Mathias Reeg, *German Aerospace Center, Germany*

Co-Authors: Kristina Nienhaus, Uwe Pfenning, Wolfgang Hauser, Sandra Wassermann, Wolfgang Weimer-Jehle, Uwe Klann, Thomas Kast, Nils Roloff

INTEGRATION OF THE SOUTH-WEST SPOT ELECTRICITY MARKETS: AN UPDATE

Presenter: Nuno Figueiredo, *MIT-P, Coimbra University, Portugal*

Co-Author(s): Patrícia Pereira da Silva

MARKET POWER IN ELECTRICITY MARKETS AND CONGESTED TRANSMISSION LINES

Presenter: Olvar Bergland, *UMB - Norwegian University of Life Sciences, Norway*

Co-Author(s): Faisal Mehmood Mirza, Alan Love

Concurrent Sessions 11:00 - 12:30h

61 Extending the horizons of energy regulation (Aula Magna)

Chair: Euan Phimister, *University of Aberdeen, UK*

IMPACT OF THE EUROPEAN MARKET INFRASTRUCTURE REGULATION ON HEDGING STRATEGIES AND INDUCED COSTS FOR ENERGY COMPANIES

Presenter: Selaimane Bigdade, *EDF R&D, France*

Co-Author(s): Clémence Alasseur and Caroline Hillairet

DYNAMICS OF INDUSTRIAL CONSOLIDATION: MERGERS, ACQUISITIONS AND JOINT VENTURES IN THE EU27 ELECTRICITY AND GAS INDUSTRY

Presenter: Marc Petz, *Glasgow Caledonian University, Germany*

Co-Author(s): David A. Edgar, Bryan K. Temple, Klaus-Dieter Maier

EURO-MASHREQ ENERGY MARKET INTEGRATION: CHALLENGES AND PAYOFFS FOR LEBANON, JORDAN AND SYRIA

Presenter: Isabella Ruble, *American University of Beirut, Lebanon*

Co-Author(s): Ola Henafi and Hiba Kodhr

BEHAVIOURAL ECONOMICS AND ENERGY REGULATION: FROM THEORY TO PRACTICE?

Presenter(s): Quirino Brindisi, *AIEE, Italy*

Co-Author(s): Alberto Biancardi

62 Energy demand: country studies (Room "7A")

Chair: Jerzy Szkutnik, *Częstochowa University of Technology, Poland*

SPANISH RESIDENTIAL ELECTRICITY DEMAND USING AGGREGATE DATA

Presenter: Leticia Blazquez, *Universidad de Castilla-La Mancha, Spain*

Co-Author(s): Massimo Filippini and Nina Boogen

EFFECT OF TEMPERATURE ON DAILY ELECTRICITY DEMAND IN ITALY

Presenter(s): Vittorio De Martino, *AIEE, Italy*

ENERGY CONSUMPTION AND SAVINGS: A SURVEY BASED STUDY OF THE FINNISH HOUSEHOLDS

Presenter: Maria Kopsakangas-Savolainen, *Finnish Environment Institute, Finland*

Co-Author(s): Artti Juutinen

ENERGY, CITIES AND CLIMATE CHANGE: THE CASE OF FRENCH HOUSINGS

Presenter: Laure Lampin, *Centre International de Recherche sur l'Environnement et le Développement, France*

Co-Author(s): Fabio Grazi

63 New energy policies in EU countries (Room "10A")

Chair: Eirik S. Amundsen, *University of Bergen, Norway*

COST-EFFICIENT COMPLIANCE OF EU RENEWABLE TARGETS THROUGH THE USE OF COOPERATION MECHANISMS: ANALYSIS OF POTENTIAL CONTRIBUTION OF SOLAR THERMAL ENERGY IN SOUTH EUROPE

Presenter: Marta Santamaría, *CIEMAT, Spain*

Co-Author(s): Natalia Caldes and Francesco Dalla Longa

FUTURE PROSPECTS FOR RES IN EUROPE BY 2020 AND BEYOND - THE NEED FOR AND IMPACT OF COOPERATION

Presenter: Gustav Resch, *Vienna University of Technology, Austria*

Co-Author(s): Christian Panzer, Sebastian Busch, Mario Ragwitz, Corinna Klessmann

RENEWABLE ENERGY POLICIES IN GERMANY: ANALYSIS OF ACTORS AND NEW BUSINESS MODEL AS A REACTION OF THE REDESIGN AND ADJUSTMENT OF POLICY INSTRUMENTS

Presenter: Sandra Wassermann, *University of Stuttgart, Germany*

Co-Author(s): Matthias Reeg, Wolfgang Weimer-Jehle, Wolfgang Hauser, Kristina Nienhaus and Nils Roloff

REGIONAL COORDINATION OF EUROPEAN ENVIRONMENTAL POLICIES

Presenter: Carlo Andrea Bollino, *University of Perugia, Italy*

Co-Author(s): Silvia Micheli

64 Economic framework: between crisis and recovery (Room "10B")

Chair: Torsten Schmidt, *Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany*

CAUSALITY BETWEEN ENERGY CONSUMPTION AND GDP BEFORE AND AFTER INDUSTRIALIZATION. SOME EMPIRICAL EVIDENCE FROM SPAIN (1900-2010)

Presenter: Jordi Ripollés, *University Jaume I of Castellón, Spain*

Co-Author(s): Jacint Balaguer

THE INFLUENCE OF BRANDING ON INVESTMENT DECISIONS UNDER UNCERTAINTY: A BEHAVIORAL FINANCE PERSPECTIVE ON INDIVIDUAL INVESTORS IN RENEWABLE ENERGY STOCKS

Presenter(s): Nina Hampl, *University of St. Gallen, Switzerland*

RETHINKING THE EURO-MEDITERRANEAN ENERGY COOPERATION TOWARDS A SUSTAINABLE ENERGY TRANSITION IN THE REGION

Presenter: Simone Tagliapietra, *Fondazione Eni Enrico Mattei, Italy*

Co-Author(s): Manfred Hafner

FREQUENCY TEST OF THE RELATIONSHIP BETWEEN OIL AND FOOD PRICES

Presenter: Torsten Schmidt, *Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany*

Co-Author(s): Karoline Krätschell

65 Considerations on new-fuel propelled vehicles (Room "10C")

Chair: Francesco Andreotti, *AIEE, Italy*

CONSUMER PREFERENCES FOR ALTERNATIVE FUEL VEHICLES: A DISCRETE CHOICE ANALYSIS

Presenter: André Hackbarth, *RWTH Aachen University, Germany*

Co-Author(s): Reinhard Madlener

OPTIMAL STRATEGIES FOR BATTERY SWITCH STATIONS FOR ELECTRIC VEHICLES

Presenter: Margaret Armstrong, *Mines ParisTech -Centre of Industrial Economics (Cerna), France*

Co-Author(s): Charles El Hajj Moussa, Jérôme Adnot, Alain Galli and Philippe Riviere

PRICE PREMIUM FOR ENERGY EFFICIENT CARS: A HEDONIC PRICE APPROACH

Presenter: Markus Bareit, *Center for Energy Policy and Economics, ETH Zurich, Switzerland*

Co-Author(s): Anna Alberini and Massimo Filippini

PV-BASED CHARGING STRATEGIES OF ELECTRIC VEHICLES IN AUSTRIAN LOW VOLTAGE GRIDS

Presenter: Rusbeh Rezaei, *Vienna University of Technology, Austria*

Co-Author(s): Georg Lettner and Wolfgang Prügler

66 The supply side: a modelling approach (Room "9A")

Chair: Nico Bauer, *Potsdam Institute for Climate Impact Research, Germany*

JOINT OPTIMISATION OF REGIONAL ENERGY AND CCS INFRASTRUCTURE SYSTEMS OF MOROCCO, PORTUGAL AND SPAIN

Presenter: Amit Kanudia, *KANORS-EMR, India*

Co-Author(s): Maurizio Gargiulo, Gian Carlo Tosato, Maryse Labriet and Rocco De Miglio

OPTIMUM IRISH ENERGY SYSTEM IN AN OIL CONSTRAINED FUTURE

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

Co-Author(s): Brian Ó'Gallachóir, Paul Deane, Maurizio Gargiulo, Alessandro Chiodi

LOWER GAS PRICES OPEN WINDOW FOR IMPROVING OIL RECOVERY

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

THE VALUE OF SUPPLY SECURITY: THE COSTS OF POWER OUTAGES TO AUSTRIAN HOUSEHOLDS, FIRMS AND THE PUBLIC SECTOR

Presenter: Michael Schmidthaler, *J.Kepler University Linz, Austria*

Co-Author(s): Johannes Reichl and Friedrich Schneider

67 Technology development (Room "9B")

Chair: Nevenka Hrovatin, University of Ljubljana, Slovenia

THE ECONOMIC IMPLICATIONS OF HYDROKINETIC APPLICATIONS - THE POTENTIAL OF COMBINED CYCLE HYDROELECTRIC POWER IN RIVER STREAMS

Presenter: Yue Liu, *Curtin University, Australia*

Co-Author(s): Daniel J. Packey

BIOENERGY IN THE CONTEXT OF THE EU 2020-AND 2050-POLICY TARGETS: TECHNOLOGY PRIORITIES, OPPORTUNITIES AND BARRIERS

Presenter: Gerald Kalt, *Austrian Energy Agency, Austria*

Co-Author(s): Lukas Kranzl and Julian Matzenberger

RESILIENT POWER - PILOT PROJECT

Presenter: Ivan Benes, *AF-Cityplan, Czech Republic*

INVESTMENT IN ELECTRICITY PLANTS WITH INCREASING WIND GENERATION

Presenter: Laura Malaguzzi Valeri, *Economic and Social Research Institute, Ireland*

Co-Author(s): Valeria Di Cosmo

68 Modelling and analysing the energy sector (Room "8A")

Chair: Lars Bergman, Stockholm School of Economics, Sweden

EVALUATING THE IMPACT OF INVESTMENTS IN RENEWABLE ENERGY AT THE REGIONAL LEVEL: AN INPUT-OUTPUT APPROACH WITH EXAMPLES FROM VENETO, ITALY

Presenter: Mattia Cai, *University of Padova, Italy*

Co-Author: Arturo Lorenzoni

ITALIAN TAXATION SYSTEM ON HYDROCARBONS PRODUCTION: A COMPARISON

Presenter: Eugenia Famiglietti, *NE Nomisma Energia, Italy*

Co-Author(s): Davide Tabarelli, Carlo Bevilacqua Ariosti, Elvira Oliva and Matteo Monti

EIGHT METHODS FOR DECOMPOSING THE AGGREGATE ENERGY INTENSITY OF ECONOMIC STRUCTURE WITH SPECIAL REGARD TO THE INDUSTRIAL SECTOR

Presenter: Tekla Sebestyén Szép, *University of Miskolc, Hungary*

A MODEL-BASED ANALYSIS OF THE ONGOING CONSOLIDATION IN THE POLISH POWER SECTOR

Presenter: Jacek Kamiński, *Mineral and Energy Economy Research Institute (Polish Academy of Sciences), Poland*

69 Environmental threats and opportunities for energy systems (Room "4A")

Chair: Anni Huhtala, Government Institute for Economic Research (VATT), Finland

THE ECONOMIC AND ENVIRONMENTAL IMPACT OF THE INTRODUCTION OF A CARBON TAX FOR SCOTLAND: A COMPUTABLE GENERAL EQUILIBRIUM ANALYSIS

Presenter: Peter McGregor, *University of Strathclyde, UK*

Co-Author(s): Grant Allan, Patrizio Lecca, Kim Swales, Marie Tamba and Matthew Winning

GLOBAL WARMING AND ELECTRICITY DEMAND IN THE RAPIDLY GROWING CITY OF DELHI: A SEMI-PARAMETRIC VARIABLE COEFFICIENT APPROACH

Presenter: Eshita Gupta, *Indian statistical institute, India*

LIBERATION AND SECURITY OF SUPPLY: SUCCESSES AND FURTHER IMPROVEMENTS IN EUROPE

Presenter: Cédric Clastres, *EDDEN, France*

Co-Author(s): Cathenne Locatelli

RISK PREFERENCES REVEALED IN VOTE ON NUCLEAR POWER IN THE FINNISH PARLIAMENT; SOCIAL COSTS OF CARBON VS. RADIOACTIVE WASTE

Presenter: Anni Huhtala, *Government Institute for Economic Research (VATT), Finland*

Co-Author(s): Piia Aatola

70 The European carbon market (Room "5A")

Chair: Aatola Piia, Government Institute for Economic Research, Finland

WHAT IF THE EU ETS WAS WELL-FUNCTIONING?

Presenter: Francois Boisseleau, *GDF SUEZ, Belgium*

WHY DO FIRMS TRADE CARBON EMISSION PERMITS? EVIDENCE FROM THE EUROPEAN EMISSION TRADING SCHEME

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

ENVIRONMENTAL POLICY AND DIRECTED TECHNOLOGICAL CHANGE: EVIDENCE FROM THE EUROPEAN CARBON MARKET

Presenter: Raphael Calel, *London School of Economics, UK*

Co-Author(s): Antoine Dechezlepretre

THE MARKET MICROSTRUCTURE OF THE EU EMISSIONS TRADING SCHEME

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

Co-Author(s): Cal Muckley

Concurrent Sessions 13:30 - 15:00h**71 Reflection on electricity transmission in the future**

(Aula Magna)

Chair: Vittorio De Martino, AIEE, Italy

ASSESSMENT OF DIFFERENT DISTRIBUTED GENERATION TECHNOLOGIES FOR A VIRTUAL POWER PLANT

Presenter: Juliana Zapata Riveros, *KU Leuven Energy Institute, Belgium*

Co-Author(s): William D'Haeseleer and Jeroen Vandewalle

BENEFITS OF REGIONAL COOPERATION IN PROVIDING BALANCING POWER

Presenter: Clemens Gerbaulet, *Technische Universität Berlin, Germany*

Co-Author(s): Lisa Hankel, Claudio Casimir Lucas Lorenz, Aram Sander, Andreas Schröder, Alexander Zerrahn and Lilian Charlotte Laurisch

MODES OF COORDINATION BETWEEN EUROPEAN TRANSMISSION SYSTEM OPERATORS

Presenter: Tanguy Janssen, *Supélec, France*

Co-Author(s): Marc Trotignon

DEVELOPMENT AND ASSESSMENT OF DIFFERENT ALGORITHMS FOR DISPATCHING A VIRTUAL POWER PLANT

Presenter: Michael Steck, *Research Center for Energy Economics (FfE), Germany*

72 Energy efficiency: economic aspects (Room "7A")

Chair: Jelena Zoric, University of Ljubljana, Slovenia

FREE-RIDING OPPORTUNITIES: ENERGY EFFICIENCY INCENTIVES AND ITALIAN HOMEOWNERS

Presenter: Andrea Bigano, *Fondazione ENI Enrico Mattei, Italy*

Co-Author(s): Anna Alberini and Marco Boeri

RUSSIA'S EMERGING ESCO MARKET: PROSPECTS AND BARRIERS FOR ENERGY EFFICIENCY INVESTMENTS

Presenter: Maria Garbuzova, *RWTH Aachen University, Germany*

Co-Author(s): Reinhard Madlener

EFFECTS OF TAX CREDIT FOR ENERGY SAVINGS IN FRANCE.

Presenter: Marie-Laure Nauleau, *CIREN, France*

WHAT ARE THE EFFECTS OF ENERGY EFFICIENCY INCENTIVES?

EVIDENCE FROM THE US CONSUMER EXPENDITURE SURVEY

Presenter: Shirley Pon, *University of Maryland, USA*

Co-Author(s): Anna Alberini

73 An overview on RES policy experiences (Room "10A")

Chair: Margaret Armstrong, Mines ParisTech - (Cerna), France

ECONOMIC IMPACTS OF ENERGY EFFICIENCY AND RENEWABLE

ENERGY IN GERMANY

Presenter: Christian Lutz, *GWS mbH, Germany*

Co-Author(s): Ulrike Lehr and Martin Pehnt

QUANTITIES VS. CAPACITIES: MINIMIZING THE SOCIAL COST OF RENEWABLE ENERGY PROMOTION

Presenter: Mark Andor, *University of Münster, Germany*

Co-Author(s): K. Flinkerbusch and A. Vob

REC MARKETS IN INDIA

Presenter: Morgan Hervé-Mignucci, *CPI Venice, Italy*

Co-Author(s): Gireesh Shrimali and Sumala Tirumalachetty

74 Impact of green policy on electricity market (Room "10B")

Chair: Lise Tole, *University of Strathclyde, UK*

COMPATIBILITY OF GREEN, WHITE AND BLACK CERTIFICATES IN ELECTRICITY MARKETS

Presenter: Eirik S. Amundsen, *University of Bergen, Norway*

Co-Author(s): Torstein Bye

RENEWABLE ELECTRICITY CERTIFICATES IN THE FLANDERS REGION: CURRENT PERFORMANCE AND POLICY OPTIONS FOR REFORM

Presenter: Peter Van Humbeeck, *Social Economic Council of Flanders (SERV), Belgium*

Co-Author(s): Mohamed Al Marchohi, Annemie Bollen

ASSESSING THE CONFLICTING INTERACTIONS OF EMPLOYMENT WITH SUSTAINABLE DEVELOPMENT. ARE NES2020 TARGETS ACHIEVABLE?

Presenter: Carla Oliveira Henriques, *INESC Coimbra, Portugal*

Co-Author(s): Dulce Coelho, Patrícia Pereira da Silva and Carlos Henggeler Antunes

WHAT IS REALLY BEHIND THE ADOPTION OF NOW RENEWABLE ELECTRICITY GENERATING TECHNOLOGIES?

Presenter: Patrick André Narbel, *Norwegian School of Economics & Business Administration, Norway*

UNDERSTANDING THE DYNAMICS OF THE EUROPEAN CARBON MARKET

Presenter: Lise Tole, *University of Strathclyde, UK*

Co-Author(s): Gary Koop

75 Energy drivers (Room "10C")

Chair: Franco Romerio, *University of Geneva, Switzerland*

AN ANALYSIS OF THE TURKISH ENERGY SECTOR WITH THE BUEN ENERGY MODELING FRAMEWORK

Presenter: Nihan Karali, *Lawrence Berkeley National Laboratory, USA*

Co-Author(s): Gürkan Kumbaroğlu and İlhan Or

REDUCING ELECTRICITY DEMAND IN THE TRANSITION TO A LOW-CARBON GERMANY – IS IT REALISTIC?

Presenter: Felix Kirsch, *Hochschule Niederrhein, Germany*

INVESTMENT DECISIONS IN ELECTRICITY MARKETS FROM THE PERSPECTIVE OF CONTROL THEORY

Presenter: Christoph Weber, *University of Duisburg-Essen, Germany*

Co-Author(s): Jessica Raasch

ENERGY CONSUMPTION AND ITS DETERMINANTS FROM 1900 TO 2100 IN THE DEVELOPED AND DEVELOPING COUNTRIES

Presenter: Franco Romerio, *University of Geneva, Switzerland*

76 Studies on RES (Room "9A")

Chair: Nadia Ameli, *Fondazione ENI Enrico Mattei, Italy*

KNOWLEDGE BASED TOOLS TO ENHANCE DEMAND FOR RENEWABLE ENERGY SOURCES

Presenter: Valentina Klevas, *Lithuanian Energy Institute, Lithuania*

Co-Author(s): Audrone Kleviene

GIS-BASED ESTIMATION OF RES POTENTIAL: AN APPLICATION FOR LOCAL ENERGY PLANNING

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

Co-Author(s): Arturo Lorenzoni

HOW THE CHANGING ECONOMICS OF PHOTOVOLTAIC SYSTEMS WILL RESHAPE THE RENEWABLE ENERGY PLANS OF MALTA AND OTHER MEDITERRANEAN NATIONS

Presenter: Manfred Weissenbacher, *University of Malta, Malta*

LARGE SCALE WIND POWER PRODUCTION IN EUROPE: INFLUENCES OF INTRA-DAY MARKET DESIGN ON SYSTEM COSTS

Presenter: Tobias Aigner and Stefan Jaehnert

77 The future energy demand (Room "9B")

Chair: Omowimi Iledare, *LSU Center for Energy Studies, USA*

END OF ELECTRICITY DEMAND GROWTH: WHY SUCH A SCENARIO IS NOT AS FAR FETCHED AS IT SOUNDS

Presenter: Fereidoon Sioshansi, *Menlo Energy Economics, USA*

DETERMINANTS OF RESIDENTIAL DEMAND FOR GREEN ENERGY: A CROSS-COUNTRY ANALYSIS

Presenter: Chandra Kiran Krishnamurthy, *Umea University, Sweden*

Co-Author(s): Bengt Kristrom

MOTIVATIONAL FACTORS INFLUENCING THE HOMEOWNERS' DECISIONS BETWEEN RESIDENTIAL HEATING SYSTEMS: AN EMPIRICAL ANALYSIS FOR GERMANY

Presenter: Christian Michelsen, *RWTH Aachen University, Germany*

Co-Author(s): Reinhard Madlener

MODELING DEMAND RESPONSE IN ELECTRICITY RETAIL MARKETS AS A STACKELBERG GAME

Presenter: Marco Zugno, *Technical University of Denmark, Denmark*

Co-Author(s): Juan Miguel Morales, Pierre Pinson, Henrik Madsen

78 In-depth view of electricity supply (Room "8A")

Chair: Sophie Meritet, *University Paris-Dauphine, France*

A SNAPSHOT OF POWER INDUSTRY PLAN

Presenter: Huei-chu Liao, *TamKang University, Taiwan*

Co-Author(s): Tsai-Yi Wu, Sih-Ting Jhou, Chih-Chun Liu, Ying-Kai Huang and Chia-Chien Wu

CAN "NUCLEAR RENTS" EXTEND BELGIUM'S NUCLEAR POWER LIFE?

Presenter: Aviel Verbruggen, *University of Antwerp, Belgium*

EUROPEAN SECURITY OF ELECTRICITY SUPPLY POLICY IN THE CONTEXT OF INCREASING VOLUMES OF INTERMITTENT GENERATION

Presenter: Laurens De Vries, *Delft University of Technology, The Netherlands*

Co-Author(s): Julian Ramirez Ospina

THE IMPACT OF VARIABLE RENEWABLE POWER GENERATION ON THE ELECTRICITY PRICE IN GERMANY

Presenter: Janina Ketterer, *University of Munich, Germany*

79 Studies on emissions (Room "4A")

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

CARBON TARIFFS FOR FINANCING CLEAN DEVELOPMENT

Presenter: Marco Springmann, *University of Oldenburg, Germany*

A NOVEL MODEL OF GHGS EMISSION FISCALITY: A SWOT ANALYSIS

Presenter: Marco Stefanoni, *ENEA, Italy*

Co-Author(s): Cecilia Camporeale

A NEW INDEX OF ENVIRONMENTAL QUALITY

Presenter: Mehmet Pinar, *Fondazione Eni Enrico Mattei, Italy*

Co-Author(s): Elettra Agliardi and Thanasis Stengos

80 Energy regulation and electricity market (Room "5A")

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

WHY AND HOW SHOULD REGIONS INTEGRATE THEIR ELECTRICITY MARKETS: A SYSTEM DYNAMICS APPROACH

Presenter: Camila Ochoa, *University of Lausanne, Switzerland*

Co-Author(s): Ann van Ackere

A COMBINED MODEL OF CLASSICAL AND IMPULSE CONTROLS FOR EMISSION

Presenter: Motoh Tsujimura, *Doshisha University, Japan*

Co-Author(s): Akira Maeda

STRUCTURING GREEN ELECTRICITY INVESTMENT IN EUROPE: DEVELOPMENT SCENARIOS FOR GENERATION AND TRANSMISSION INVESTMENTS

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

Co-Author(s): Thorsten Beckers, Albert Hoffrichter, Alexander Weber

OPTIMIZATION PROPOSAL FOR THE RES-E SUPPORT MODEL IN PORTUGAL

Presenter: Catia Sousa, *Lusófona University, Portugal*

Co-Author(s): Manuel Cabugueira



Social Events for Accompanying Persons

A Venice tour to **Piazza San Marco** and visit to two important museums: the **Querini Stampalia Foundation** and the **National Library of St. Mark's** (Biblioteca Nazionale Marciana)

Piazza San Marco (often known in English as St Mark's Square), is the main public square of Venice.

The Piazza is dominated at its eastern end by the great church of St Mark with its great arches facade and marble decoration, the Romanesque carvings round the central doorway and the four horses which preside over the whole piazza symbols of the pride and power of Venice.

Near its clock-tower is the closed church of San Basso, (1675), sometimes open for exhibitions.

To the left is the long arcade along the north side of the Piazza, the buildings on this side, built in the early 16th century, are known as the old procuracies, formerly the homes and offices of the Procurators of Saint Mark, high officers of state in the days of the republic of Venice.

Turning left at the end, the arcade continues along the west end of the Piazza, which was rebuilt by Napoleon in about 1810 and is known as the Napoleonic Wing. It holds, behind the shops, a ceremonial staircase which was to have led to a royal palace but now forms the entrance to the Correr Museum.

Opposite to this, standing free in the Piazza, is the Campanile of St Mark's church (1156/73 last restored in 1514). Adjacent to the Campanile, facing towards the church, is the elegant small building known as the Loggetta, built by Sansovino in 1537-46, and used as a lobby by patricians waiting to go into a meeting of the Great Council in the Doges Palace.



Querini Stampalia Foundation

In the heart of Venice, only a short distance from St. Mark's square, stands one of the most interesting artistic complexes of the city: Palazzo Querini Stampalia, which houses the cultural Foundation of the same name, founded in 1869 to immortalize Count Giovanni Querini Stampalia's family name. Here is conserved the patrimony of the family. It has a library, a museum and a temporary exhibition space.

The Library, currently containing approximately 300,000 volumes, covers a wide range of subjects. The oldest collection within the library consists of 1300 manuscripts, 100 incunabula, 1600 books from the 16th to the 19th century and 3000 loose leaves, together with atlases and maps. The private archives of the Querini Stampalia family also offer valuable documents to those interested in Venetian history and civilization.

The Museum, found on the second floor, houses Neoclassical and 18th century furniture, biscuits, porcelain, sculptures, globes, and more than four hundred paintings dating from the 14th to the 19th century, the majority of which were painted by artists of the Venetian and the Veneto School. It is one of the richest art collections in the city.

Amongst the pieces on show are works by Giovanni Bellini, Lorenzo di Credi, the two Palmas, Bernardo Strozzi, Marco and Sebastiano Ricci, Giambattista Tiepolo, Pietro Longhi, Gabriel Bella, and Antonio Canova.

The historical patrimony and the physical structure of the building itself, enhanced by the modern architectural interventions of Carlo Scarpa and Mario Botta, constitute the fundamental reference for the activities of the foundation. It proposes itself as the site for cultural production and with careful observation welcomes the very latest movements in contemporary culture.



The National Library of St Mark's (Biblioteca Nazionale Marciana)

The National Library of St Mark's (Biblioteca Nazionale Marciana) is a library and Renaissance building in Venice, one of the earliest surviving public manuscript depositories in the country, holding one of the greatest classical texts collections in the world. The library is named after St. Mark, the patron saint of Venice.

The first sixteen arcaded bays of his design were constructed during 1537 to 1553, with work on frescoes and other decorations continuing until 1560.

However, the library stock began to be collected before the construction of the building. For example, the germ of the collections in the library was the gift to the Serenissima of the manuscript collection assembled by Byzantine humanist, scholar, patron and collector, Cardinal Bessarion; he made a gift of his collection in 1468: some 750 codices in Latin and Greek, to which he added another 250 manuscripts and some printed books, constituting the first "public" library open to scholars in Venice. Like the British Library or the Library of Congress at later times, the Marciana Library profited from a law of 1603 that required that a copy be deposited in the Marciana of all books printed at Venice, the first such law. The Marciana was enriched by the transfer in the late eighteenth century of the collections accumulated in several monasteries.

Today, besides about a million printed books, the Biblioteca Marciana contains about 13,000 manuscripts and 2883 incunabula and 24,055 works printed between 1500 and 1600. There are many illuminated manuscripts.



Visiting programme:

September 10:
15:00-16:30h

Visit to the **National Library of St Mark** (Biblioteca Marciana).
meeting point: "Hotel Principe" (Lista d Spagna, Cannaregio 146) at 14.15h

September 11:
10:00-11:00h

Visit to the **Querini Stampalia Foundation**
meeting point: "Hotel Principe" (Lista d Spagna, Cannaregio 146) at 09.15h

