

18–20 May 2017

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HELLENIC  
ASSOCIATION for  
ENERGY ECONOMICS

**The landscape in the new era  
of energy transition:**

Challenges, investment opportunities  
and technological innovations

AFFILIATE OF:

IAEE

INTERNATIONAL  
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ENERGY ECONOMICS

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 Metropolitan Hotel Athens, Greece

## 2nd HAEE INTERNATIONAL CONFERENCE

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18 May 2017

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**14:15 - 15:45**      **Concurrent Sessions (1-3)**

1. New perspectives for the energy sector      **Room:** Room 1      **Chair:** Kyriaki Kosmidou (Aristotle University of Thessaloniki)

Alternative risk measurements in the power sector applying Monte Carlo simulation on PPC

**Authors:** Angeliki Zacharaki (Aristotle University of Thessaloniki), Radamanthis Tsotsos (Aristotle University of Thessaloniki), Kyriaki Kosmidou (Aristotle University of Thessaloniki)

**Presenters:** Angeliki Zacharaki (Aristotle University of Thessaloniki)

Economic analysis of a vertically integrated electricity company: Case study of regulatory market share reduction in the Greek wholesale electricity market during the period 2017 - 2019

**Authors:** Iraklis Skoteinos (University of Piraeus), Assimina Vlachou (University of Piraeus), Athanasios Dagoumas (University of Piraeus)

**Presenters:** Assimina Vlachou (University of Piraeus)

A novel approach to improve the estimation of customer baseline loads in residential demand response programs

**Authors:** Peter Schwarz (UNC Charlotte), Saeed Mohajeryami (UNC Charlotte)

**Presenters:** Peter Schwarz (UNC Charlotte)

Dynamic orthogonal components in day-ahead electricity prices: the case of the PJM wholesale market

**Authors:** Nikolaos Thomaidis (Aristotle University of Thessaloniki), Gordon Dash (University of Rhode Island), Nina Kajji (University of Rhode Island, NKD Group Inc)

**Presenters:** Nikolaos Thomaidis (Aristotle University of Thessaloniki)

Optimal participation of renewable energy and demand response resources in the wholesale electricity market in Greece

**Authors:** Ilias Mameris (Aristotle University of Thessaloniki), Dimitris Chatzigiannis (Aristotle University of Thessaloniki), Pandelis Biskas (Aristotle University of Thessaloniki)

**Presenters:** Pandelis Biskas (Aristotle University of Thessaloniki)

Assessment of the PPC S.A. financial state based on multiple ratios analysis

**Authors:** Angeliki Zacharaki (Aristotle University of Thessaloniki), Radamanthis Tsotsos (Aristotle University of Thessaloniki), Kyriaki Kosmidou (Aristotle University of Thessaloniki)

**Presenters:** Kyriaki Kosmidou (Aristotle University of Thessaloniki)

## 2. Potential market developments and future infrastructures for the oil industry

**Room:** Room 2

**Chair:** Mamdouh Salameh (Oil Market Consultancy Service)

A shocking truth about oil shocks and stock returns

**Authors:** George Filis (Bournemouth University), David Broadstock (The Hong Kong Polytechnic University)

**Presenters:** George Filis (Bournemouth University)

The impact of alternative energy on OPEC and non-OPEC oil production: A simultaneous equation approach.

**Authors:** Sarah Najm (University of Reading)

**Presenters:** Sarah Najm (University of Reading)

Oil prices and the renewable energy sector

**Authors:** Evangelos Kyritsis (Norwegian School of Economics), Apostolos Serletis (University of Calgary)

**Presenters:** Evangelos Kyritsis (Norwegian School of Economics)

A post-oil era is a myth

**Authors:** Mamdouh Salameh (Oil Market Consultancy Service)

**Presenters:** Mamdouh Salameh (Oil Market Consultancy Service)

The oil price-stock market nexus: Evidence from the GCC countries

**Authors:** Leila Dagher (American University of Beirut), Fatima Karout (American University of Beirut)

**Presenters:** Leila Dagher (American University of Beirut)

## 3. Potential market developments and future infrastructures for the gas industry

**Room:** Room 3

**Chair:** Seyed Mohsen Razavi (Gas Exporting Countries forum)

Shale gas production and U.S. natural gas market dynamics: a TVP-VAR approach

**Authors:** Christophe Schalck (Paris School of Business), Stephan Silvestre (Paris School of Business)

**Presenters:** Christophe Schalck (Paris School of Business)

Experience curve for natural gas production by hydraulic fracturing

**Authors:** Carl Greenfield (International Technology and Trade Associates, Inc. (ITTA)), Rokuhei Fukui (World Bank Group/Johns Hopkins School of Advanced International Studies)

**Presenters:** Carl Greenfield (International Technology and Trade Associates, Inc. (ITTA)), Rokuhei Fukui (World Bank Group/Johns Hopkins School of Advanced International Studies)

Prospects of liquefied gas in Bangladesh economy as a move towards fuel diversification

**Authors:** Muntasir Murshed (North South University), Dr. Sakib Bin Amin (North South University)

**Presenters:** Dr. Sakib Bin Amin (North South University)

Future LNG demand and implications for the shipping industry

**Authors:** Konstantinos Kanellopoulos (Cass Business School)

**Presenters:** Konstantinos Kanellopoulos (Cass Business School)

The role of natural gas in OECD Europe energy balance for the period till 2040

**Authors:** Dmitry Sokolov (Gas Exporting Countries Forum (GECF)), Sofiane Ghezali (Gas Exporting Countries Forum (GECF)), Seyed Mohsen Razavi (Gas Exporting Countries Forum (GECF))

**Presenters:** Seyed Mohsen Razavi (Gas Exporting Countries Forum (GECF))

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## 19 May 2017

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### 15:00 - 16:30 Concurrent Sessions (4-6)

4. Decentralized energy production and grid management **Room:** Room 1 **Chair:** Georgios Papaefthymiou (Elia Grid International GmbH)

Decentralized management of flexible loads in future power systems: Going beyond dynamic pricing

**Authors:** Dimitrios Papadaskalopoulos (Imperial College London), Goran Strbac (Imperial College London)

**Presenters:** Dimitrios Papadaskalopoulos (Imperial College London)

Electricity grid tariffs to increase the flexibility of power-to-heat in district heating

**Authors:** Claire Bergaentzlé (DTU), Klaus Skytte (DTU), Ole Jess Olsen (DTU), Emilie Rosenlund Soysal (DTU), Jonas Katz (DTU)

**Presenters:** Claire Bergaentzlé (DTU)

The potential of sector coupling and demand side management in a highly renewable German power system

**Authors:** Alexander Kies (Frankfurt institute for Advanced Studies)

**Presenters:** Alexander Kies (Frankfurt institute for Advanced Studies)

Smart regulatory framework conditions for smart energy systems? Incentives for flexible district heating in the Nordic countries

**Authors:** Klaus Skytte (DTU Management Engineering), Ole Jess Olsen (DTU Management Engineering), Emilie Rosenlund Soysal (DTU Management Engineering), Eli Sandberg (NMBU Ecology and Natural Resource

Management), Daniel Møller Sneum (DTU Management Engineering)

**Presenters:** Daniel Møller Sneum (DTU Management Engineering)

Carbon offsetting and guarantees of origin (GOs) from renewable energy sources: Contribution to a greener future of industry

**Authors:** Konstantinos Gkarakis (RES Lab, Department of Energy Technology Engineering, TEI Athens)

**Presenters:** Konstantinos Gkarakis (RES Lab, Department of Energy Technology Engineering, TEI Athens)

Power system flexibility tracker: Indicators to track flexibility progress towards high-RES systems

**Authors:** Edwin Haesen (Ecofys), Georgios Papaefthymiou (Elia Grid International GmbH), Thobias Sach (Ecofys)

**Presenters:** Georgios Papaefthymiou (Elia Grid International GmbH)

## 5. New perspectives in Oil & Gas

**Room:** Room 2

**Chair:** Stephan Silvestre (Paris School of Business)

Nord stream 2 - Legal and political objections of the EU

**Authors:** Jörg Himmelreich (University of Potsdam, Germany)

**Presenters:** Jörg Himmelreich (University of Potsdam, Germany)

A tale of two corridors: The importance of the Caspian Sea and the Eastern Med for the EU's gas security policy

**Authors:** Theodoros Tsakiris (University of Nicosia )

**Presenters:** Theodoros Tsakiris (University of Nicosia )

Informed trading in oil futures market

**Authors:** Olivier Rouse (Université Grenoble Alpes), Benoît Sévi (Université de Nantes)

**Presenters:** Benoît Sévi (Université de Nantes)

Volatility and asymmetry in oil price transmission

**Authors:** Stephan Silvestre (Paris School of Business)

**Presenters:** Stephan Silvestre (Paris School of Business)

## 6. Regional energy supply and security issues

**Room:** Room 3

**Chair:** Roula Inglesi-Lotz (Department

of Economics, University of Pretoria)

Revisiting the EU-Russia energy cooperation: Challenges in a new global energy era

**Authors:** Pedro Camacho (Instituto Português de Relações Internacionais - Universidade Nova de Lisboa), Carla Fernandes (Instituto Português de Relações Internacionais - Universidade Nova de Lisboa)

**Presenters:** Pedro Camacho (Instituto Português de Relações Internacionais - Universidade Nova de Lisboa)

Energy innovation and corruption perception index in emissions process: Evidence through the EKC hypothesis

**Authors:** Daniel Balsalobre Lorente (University of Castilla La Mancha), Muhammad Shahbaz (Montpellier Business School)

**Presenters:** Daniel Balsalobre Lorente (University of Castilla La Mancha)

The potential of alternative fuels in Kenya: Entrepreneurial opportunities from imperfect markets

**Authors:** Ahmad Rahnema (IESE Business School), George Njenga (Strathmore University), Geoffrey Ronoh (Strathmore University)

**Presenters:** Ahmad Rahnema (IESE Business School)

How can Bangladesh prepare for the new era of global energy transition?

**Authors:** Dr. Sakib Bin Amin (North South University), Muntasir Murshed (North South University), Fatema Tul Jannat (North South University)

**Presenters:** Muntasir Murshed (North South University)

Examining the energy rebound effect in South Africa within a BRICS countries context

**Authors:** Roula Inglesi-Lotz (University of Pretoria)

**Presenters:** Roula Inglesi-Lotz (University of Pretoria)

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## 20 May 2017

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### 09:00 - 11:00 Concurrent Sessions (7-10)

7. Energy efficiency    **Room:** Room 1    **Chair:** Efthimios Zervas (Hellenic Open University)

Impacts of climate change on energy production efficiency

**Authors:** Valsami Georgaki (University of Western Macedonia), Vasiliki Toka (University of Western Macedonia), Ioannis Stergiou (University of Western Macedonia), Dimitris Kolokotronis (University of Western Macedonia), Efthimios Tagaris (University of Western Macedonia), Rafaella - Eleni Sotiropoulou (University of Western Macedonia)

**Presenters:** Valsami Georgaki (University of Western Macedonia), Rafaella - Eleni Sotiropoulou (University of Western Macedonia)

Consumer energy efficiency decision making

**Authors:** Michalis Skourtos (Agricultural University of Athens), Areti Kontogianni (University of Western Macedonia), Eleanor Denny (Trinity College Dublin), Steffen Kallbekken (CICERO), Ibon Galarraga (Basque Centre for Climate Change), Andrej Gubina (University of Ljubljana), Christos Tourkolias (Centre for Renewable Energy Sources)

**Presenters:** Michalis Skourtos (Agricultural University of Athens)

Environmental and energy efficiency analysis of EU electricity industry: An almost spatial two stages DEA approach

**Authors:** Simona Bigerna (University of Perugia), Carlo Andrea Bollino (University of Perugia), Maria Chiara D'Errico (University of Perugia), Paolo Polinori (University of Perugia)

**Presenters:** Paolo Polinori (University of Perugia)

Residence, occupants behavior and energy efficiency: A case study in Athens

**Authors:** Efthimios Zervas (Hellenic Open University)

**Presenters:** Efthimios Zervas (Hellenic Open University)

Energy use and occupants' behavior in bioclimatic and typical social housing estate: A comparison between Pefki solar village and Acharnes II settlement

**Authors:** Georgia Gemenetzi (Hellenic Open University), Spyros Papaefthimiou (Technical University of Crete), Efthimios Zervas (Hellenic Open University)

**Presenters:** Efthimios Zervas (Hellenic Open University)

## 8. Renewables: Future challenges and technological innovations

Room: Room 2

Chair: Nikolaos

Thomaidis (Aristotle University of Thessaloniki)

Integration of renewable energy in Greek energy markets: A case study

**Authors:** *Caroline Palmer (Fulbright Foundation)*

**Presenters:** *Caroline Palmer (Fulbright Foundation)*

Comparing the national strategies in China and Germany to utilize solar energy and develop photovoltaic industries

**Authors:** *Yuan Xu (The Chinese University of Hong Kong)*

**Presenters:** *Yuan Xu (The Chinese University of Hong Kong)*

The economics of solar photovoltaic (PV) energy

**Authors:** *Amro M. Elshurafa (Kapsarc), Carlo Andrea Bollino (University of Perugia and Kapsarc), Shahad Albardi (Kapsarc), Simona Bigerna (University of Perugia)*

**Presenters:** *Carlo Andrea Bollino (University of Perugia and Kapsarc)*

Solar energy technologies: Integrated collector storage water heaters

**Authors:** *Spiros Papaefthimiou (TUC), Constantin Zopounidis (Technical University of Crete), Manolis Souliotis (University of Western Macedonia)*

**Presenters:** *Manolis Souliotis (University of Western Macedonia)*

Renewable energy sources policies in the EU assessment with a Bayesian DSGE model

**Authors:** *Amedeo Argentiero (University of Perugia), Carlo Andrea Bollino (University of Perugia), Silvia Micheli (University of Perugia), Iordanis Kalaitzoglou (Audencia Business School)*

**Presenters:** *Silvia Micheli (University of Perugia)*

Assessing the potential of a mixed portfolio of renewables to replace fossil-fuel capacity

**Authors:** *Nikolaos Thomaidis (Aristotle University of Thessaloniki), Francisco Santos-Alamillos (University of Jaén)*

**Presenters:** *Francisco Santos-Alamillos (University of Jaén)*

## 9. The new era of global energy transition

Room: Room 3

Chair: Gavin Kretzschmar (EADA Business School)

Does the environmental Kuznets curve exist for the most polluting countries? A decomposed analysis of China and India

**Authors:** *Muhammad Shahbaz (Montpellier Business School and Montpellier Research in Management, France), Mantu Kumar Mahalik (National Institute of Technology (NIT), Sundargarh, Odisha, India), Thi Hong Van Hoang (Montpellier Business School)*

**Presenters:** *Thi Hong Van Hoang (Montpellier Business School)*

Energy security performance in Japan under different socioeconomic and energy conditions

**Authors:** *Ken'ichi Matsumoto (Nagasaki University), Haruka Ikuta (The University of Shiga Prefecture), Hiroto Shiraki (The University of Shiga Prefecture)*

**Presenters:** *Ken'ichi Matsumoto (Nagasaki University)*

The transition from the national to the EU model of energy governance: Rethinking energy policy

**Authors:** *Roberto Cardinale (University College London)*

**Presenters:** Roberto Cardinale (University College London)

A conceptual framework for developing the cost of capital of stakeholders: Case study of sustainable Hockerton Ltd.

**Authors:** Geeta Lakshmi (University of Lincoln, UK), Muhammad Khan (University of Lincoln, UK), Dimitrios Vortelinos (University of Lincoln, UK)

**Presenters:** Dimitrios Vortelinos (University of Lincoln, UK)

Does globalization intensify energy demand in high, middle and low income countries? The significance of time lags and leads

**Authors:** Muhammad Shahbaz (Montpelier Business School)

**Presenters:** Muhammad Shahbaz (Montpelier Business School)

End-game for China's era of state 'funded' deal discounts

**Authors:** Gavin Kretzschmar (EADA Business School)

**Presenters:** Gavin Kretzschmar (EADA Business School)

## 10. The future of Green transportation Technology)

**Room:** Room 4

**Chair:** Amela Ajanovic (Vienna University of

A Strategy Tripod Perspective on Business Model Innovation of Emerging Industry: A Focus on China's Electric Vehicles Industry

**Authors:** Suxiu Li (Beijing Jiaotong University), Ari Kokko (Copenhagen Business School), Yingqi Liu (Beijing Jiaotong University)

**Presenters:** Yingqi Liu (Beijing Jiaotong University)

Grid connection of shared electric vehicles

**Authors:** Anjali Nursimulu (Ecole Polytechnique Federale de Lausanne (EPFL)), Thomas Weber (Ecole Polytechnique Federale de Lausanne (EPFL))

**Presenters:** Anjali Nursimulu (Ecole Polytechnique Federale de Lausanne (EPFL))

Tourists' willingness to pay for green transportation in a protected area in Italy

**Authors:** Simona Bigerna (University of Perugia), Carlo Andrea Bollino (University of Perugia), Silvia Micheli (University of Perugia), Paolo Polinori (University of Perugia)

**Presenters:** Simona Bigerna (University of Perugia)

The ports as smart micro-grids: development perspectives

**Authors:** Petros Katsikas (Protasis S.A.), Thekla Boutsika (Protasis S.A.), John Prousalidis (National Technical University of Athens), Dimitrios Lyridis (National Technical University of Athens), Christos Papaleonidas (National Technical University of Athens), Stefanos Dallas (National Technical University of Athens), Theodoros Kourmpelis (National Technical University of Athens), Vassilis Georgiou (Protasis S.A.), Dimosthenis Spathis (Protasis S.A.), Panayiotis Mitrou (Hellenic Lloyds S.A.)

**Presenters:** Vassilis Georgiou (Protasis S.A.)

Assessing the environmental efficiency of Greek cruise ports

**Authors:** Spiros Papaefthimiou (TUC), Alexandra Maragkogianni (TUC)

**Presenters:** Alexandra Maragkogianni (TUC)

The future role of alternative fuels in the transport sector

**Authors:** Amela Ajanovic (Vienna University of Technology)

**Presenters:** Amela Ajanovic (Vienna University of Technology)

## 11:00 - 13:00 Concurrent Sessions (11-14)

11. Intelligent and sustainable management of environment and water resources **Room:** Room 1  
**Chair:** Spiros Papaefthimiou (TUC)

Sustainable water management and the 2030 development agenda

**Authors:** Alexandros Makarigakis (UNESCO)

**Presenters:** Alexandros Makarigakis (UNESCO)

Integrated Marine and Inland Water Management: a programme funded by the European Economic Area (EEA)

**Authors:** Xrysoula Kourteli (Head of Special Agency for Coordination, Ministry of Environment and Energy of Environmental Projects (SACEP)), Dimitris Stamatiadis (Special Agency for Coordination, Ministry of Environment and Energy of Environmental Projects (SACEP)), Dimitra Koumparou (Special Agency for Coordination, Ministry of Environment and Energy of Environmental Projects (SACEP))

**Presenters:** Dimitra Koumparou (Special Agency for Coordination, Ministry of Environment and Energy of Environmental Projects (SACEP))

Intelligent system for sustainable management of water networks: application in the island of Crete

**Authors:** Tasos Pouliezos (Technical University of Crete), Sveinung Sægrov (Professor, Department of Civil and Environmental Engineering, NTNU), Spiros Papaefthimiou (TUC)

**Presenters:** Tasos Pouliezos (Technical University of Crete)

Water supply & irrigation infrastructure of the OAK SA: Systems & methods of optimal management & energy saving

**Authors:** Triantafyllia Nikolaou (Organization for the Development of Crete S.A. (OAK SA))

**Presenters:** Triantafyllia Nikolaou (Organization for the Development of Crete S.A. (OAK SA))

Climate Change and Water Resources Governance

**Authors:** Nikolaos Nikolaidis (Technical University of Crete)

**Presenters:** Nikolaos Nikolaidis (Technical University of Crete)

A world where every drop counts: Products, solutions and services for the complete water cycle

**Authors:** Nikos Makrakos (ABB SA)

**Presenters:** Nikos Makrakos (ABB SA)

Intelligent and sustainable management of water resources

**Authors:** Tasos Pouliezos (Technical University of Crete), Sveinung Sægrov (Professor, Department of Civil and Environmental Engineering, NTNU), Spiros Papaefthimiou (Technical University of Crete)

**Presenters:** Spiros Papaefthimiou (Technical University of Crete)

12. Fuel Cells and Hydrogen: from R&D efforts to reality **Room:** Room 2 **Chair:** George Marnellos (University of Western Macedonia)

Hydrogen energy from the past, for the present and the future of the planet: The technologies of hydrogen production and applications

**Authors:** Spyros Voutetakis (Chemical Process and Energy Resources Institute)



**Presenters:** Spyros Voutetakis (Chemical Process and Energy Resources Institute)

Hydrogen storage & safety aspects for small scale decentralized applications

**Authors:** Emmanuel Stamatakis (DIADIKASIA S.A. / NCSR DEMOKRITOS), Thanos Stubos (NCSR DEMOKRITOS)

**Presenters:** Thanos Stubos (NCSR DEMOKRITOS)

Hydrogen and fuel cell technologies for space applications

**Authors:** Stella Balomenou (CPERI/CERTH), Kalliopi-Maria Papazisi (CPERI/CERTH), Dimitrios Tsiplakides (Aristotle University of Thessaloniki and CPERI/CERTH)

**Presenters:** Dimitrios Tsiplakides (Aristotle University of Thessaloniki and CPERI/CERTH)

Fuel cells and hydrogen technologies: Implementation and funding opportunities

**Authors:** Pedro Guedes de Campos (Fuel Cells and Hydrogen Joint Undertaking), Nikolaos Lympereopoulos (Fuel Cells and Hydrogen Joint Undertaking)

**Presenters:** Pedro Guedes de Campos (Fuel Cells and Hydrogen Joint Undertaking)

Photoelectrochromic windows for energy saving and power production in buildings. Recent developments and future prospects

**Authors:** George Leftheriotis (University of Patras. Physics Dept.), Alexandros Dokouzis (University of Patras. Physics Dept.), Krystallia Theodosiou (University of Patras. Physics Dept.)

**Presenters:** George Leftheriotis (University of Patras. Physics Dept.)

Remediation of Black Sea ecosystem via H<sub>2</sub>S-H<sub>2</sub>O co-electrolysis in a proton-conducting membrane reactor for "green" H<sub>2</sub> production: A feasibility study of the integrated approach

**Authors:** Dimitris Ipsakis (CPERI/CERTH), Tzoulia Kraia (University of Western Macedonia), Michalis Konsolakis (Technical University of Crete), George Marnellos (University of Western Macedonia)

**Presenters:** George Marnellos (University of Western Macedonia)

### 13. Global and EU climate policy and emissions trading schemes

**Room:** Room 3

**Chair:** Ricardo

Marto (International Monetary Fund (IMF))

The impacts of a carbon floor price on the electricity sector

**Authors:** Boris Solier (University Paris-Dauphine, Climate Economics Chair)

**Presenters:** Boris Solier (University Paris-Dauphine, Climate Economics Chair)

Could market making be profitable in the European carbon market?

**Authors:** Kostas Andriosopoulos (ESCP Europe Business School), Emiliios Galariotis (Audencia Business School), Iordanis Kalaitzoglou (Audencia Business School)

**Presenters:** Iordanis Kalaitzoglou (Audencia Business School)

A multicriteria assessment approach to the energy trilemma

**Authors:** Athanasios Pliousis (Technical University of Crete), Kostas Andriosopoulos (ESCP Europe Business School), Michael Doumpos (Technical University of Crete), Emiliios Galariotis (Audencia Business School)

**Presenters:** Athanasios Pliousis (Technical University of Crete)

Achieving industrial emission reduction – Insights from a comparative analysis of the EU low carbon roadmap vs. industrial subsector roadmaps

**Authors:** Nele Friedrichsen (Fraunhofer Institute for Systems and Innovation Research ISI), Gizem Erdogmus (Fraunhofer Institute for Systems and Innovation Research ISI)

**Presenters:** Nele Friedrichsen (Fraunhofer Institute for Systems and Innovation Research ISI)

The 2-pool system. A new gas oriented electricity market design towards a sustainable european energy future

**Authors:** Georgios Papadakis (Samaras & Associates Consultant Engineers S.A.)

**Presenters:** Georgios Papadakis (Samaras & Associates Consultant Engineers S.A.)

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The impact of the EU Emissions Trading Scheme (EU ETS) on firms' performance and energy efficiency

**Authors:** Georgia Makridou (ESCP Europe Business School), Kostas Andriosopoulos (ESCP Europe Business School), Michael Doumpos (Technical University of Crete), Spiros Papaefthimiou (Technical University of Crete), Emiliios Galariotis (Adencia Business School)

**Presenters:** Georgia Makridou (ESCP Europe Business School)

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Emissions and growth: Trends and cycles in an integrated world

**Authors:** Ricardo Marto (International Monetary Fund (IMF)), Gail Cohen (National Academy of Sciences, Engineering, and Medicine), Joao Jalles (International Monetary Fund (IMF)), Prakash Loungani (International Monetary Fund (IMF))

**Presenters:** Ricardo Marto (International Monetary Fund (IMF))

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**14. Investment opportunities in the energy sector**      **Room:** Room 4      **Chair:** Ken'ichi Matsumoto (Nagasaki University)

How innovation and disruption is reshaping the future of the power sector

**Authors:** Fereidoon Sioshansi (Menlo Energy Economics)

**Presenters:** Fereidoon Sioshansi (Menlo Energy Economics)

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Investors' perspective on determinants of foreign direct investment in renewable energy in developing economies -What is really significant?

**Authors:** Alexander Keeley (Kyoto University), Ken'ichi Matsumoto (Nagasaki University)

**Presenters:** Alexander Keeley (Kyoto University)

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Investor herding and dispersing in the renewable energy sector

**Authors:** Yimeng Yu (Macquarie University, Sydney, Australia), Stefan Trück (Macquarie University, Sydney, Australia)

**Presenters:** Yimeng Yu (Macquarie University, Sydney, Australia)

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Energy Performance Contracting for tertiary sector Barriers, opportunities and applications

**Authors:** Theocharis Tsoutsos (Technical University of Crete)

**Presenters:** Theocharis Tsoutsos (Technical University of Crete)

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Powering Kenya: Understanding the landscape and exploring possibilities for investments

**Authors:** Felix Sanchez Broco (IESE Business School), Ahmad Rahnema (IESE Business School), Loice Kerubo (Strathmore University)

**Presenters:** Felix Sanchez Broco (IESE Business School)

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Fisikon - Internal corporate venturing of a new automobile fuel in Greece

**Authors:** Georgios Chatzopoulos (DEPA SA), Stefanos Economidis (DEPA SA)

**Presenters:** Georgios Chatzopoulos (DEPA SA)

Investment constraints for major energy projects in SE Europe and energy investment potential over 2016-2025

**Authors:** *Nicholaos Sofianos (Institute of Energy For SE Europe), Dimitrios Mezartasoglou (Institute of Energy for South East Europe), Costis Stambolis (Institute of Energy for South East Europe)*

**Presenters:** *Costis Stambolis (Institute of Energy for South East Europe)*

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