

Athens, September 21 - 24, 2022

17th IAEE European Energy Conference

The Future of Global Energy Systems

INSTITUTIONAL PARTNER



HOSTED BY



ORGANIZED BY:



CONFERENCE AGENDA

#IAEE2022ATH



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WELCOME

On behalf of the Organizing Committee and the organizing institutions, it is a great pleasure to welcome you all to the 17th IAEE European Conference. We are proud and honored to have been trusted by the IAEE to organize such a prestigious and important Conference, and we hope that you will actively contribute to making it an interesting and stimulating event, professionally and socially.

When we decided on “The Future of Global Energy Systems” as the main Conference theme, this was to reflect some of the fundamental changes taking place on the international energy and environmental scene and the challenges that uncertainty in its many dimensions poses for those of us interested and engaged in the role energy economics plays in the analysis, decision-making, and policy choices across all energy sectors. We hope that the Conference program actually reflects those challenges and issues.

Organizing an international Conference on this scale is a collective effort and adventure. We thank our sponsors for their generous financial support. The members of the Program Committee have been very helpful with professional advice and with the evaluation of the overwhelmingly large number of submitted abstracts and papers. Plenary session speakers have readily accepted our invitation to address the Conference and so have session organizers and chairs. And last but not least, we wish to thank our hosted partner the American College of Greece for their valuable support in making this Conference come true.



Spiros Papaefthimiou
HAEE President
Professor, Technical University of Crete

As President of IAEE for 2022, I welcome you to the 17th IAEE European Energy Conference, the first face to face meeting for the IAEE European Conference in the post-covid era! We are extremely grateful to The American College of Greece for hosting the conference. It also is gratifying to see many educational institutions and research organizations collaborating to support the conference.

We also thank members of the Hellenic Association for Energy Economics (HAEE), and especially the conference co-chairs Spiros Papaefthimiou and Kostas Andriosopoulos, for providing the substantial amount of work required to mount one of these conferences. I am especially impressed with the external support that HAEE has garnered.

This includes four government departments. The breadth of their responsibilities reflects the IAEE’s expansive view of the importance of the energy sector to many policy domains. We also very much appreciate the financial support from a wide range of sponsors.

IAEE conferences play a vital role in sustaining the IAEE family by allowing our members to exchange views, and expose their latest research to worthwhile scrutiny and feedback. IAEE Conferences also provide valuable networking opportunities. As you take part in more of our conferences, you will welcome the opportunity to catch up with many friends who share your interests.

I hope you thoroughly enjoy our conference. Please consider attending more of them for many years to come!



Peter Hartley
IAEE President
George A. Peterkin Professor of Economics,
Rice University

PROGRAM OUTLINE

Day 1 | Wednesday, September 21, 2022

13:00-18:30	Registration	Events Hall (ACG)
08:00-16:00	IAEE Strategy Session (invitation only)	Divani Caravel Hotel ("Horizon" Hall)
14:00-18:30	PhD Day Seminars	Events Hall (ACG)
19:00-20:30	Welcome Reception	Open Air Theater (ACG)
20:40	Departure of shuttle buses	ACG Entrance
21:00-23:00	IAEE Council Dinner (invitation only)	Dionysos Zonars Restaurant
21:00-23:00	Athens Happy Hour	Mantzarou 3, (3 Mantzarou str. 10672, Athens)

Day 2 | Thursday, September 22, 2022

09:00-17:00	Registration	Pierce Theater Patio (ACG)
08:30-09:30	European Affiliate Leaders Meeting (invitation only)	Deree Faculty Lounge (ACG)
10:00-10:20	Welcome remarks	Pierce Theater (ACG)
10:20-10:30	Opening remarks	Pierce Theater (ACG)
10:30-10:40	One-on-One Discussion	Pierce Theater (ACG)
10:40-11:30	Plenary Session 1	Pierce Theater (ACG)
11:30-12:15	Plenary Session 2	Pierce Theater (ACG)
12:15-13:00	Plenary Session 3	Pierce Theater (ACG)
13:00-13:45	Plenary Session 4	Pierce Theater (ACG)
13:45-15:00	Lunch	Pierce Theater Patio (ACG)
14:00-15:00	Poster Session 1	Pierce Corridor (ACG)
15:00-15:10	MIT Awarded case study: Artificial Intelligence & Energy Efficiency	Pierce Theater Patio (ACG)
15:10-16:15	Plenary Session 5	Pierce Theater (ACG)
16:15-17:00	Plenary Session 6	Pierce Theater (ACG)
17:00-18:30	15 Concurrent Sessions	Pierce Classrooms (ACG)
18:50	Departure of shuttle buses	ACG Entrance
20:00-21:00	1-hour private guided tour	Acropolis Museum
21:00-23:00	Gala Dinner	Acropolis Museum restaurant

Day 3 | Friday, September 23, 2022

09:00-17:00	Registration	Pierce Theater Patio (ACG)
08:30-09:30	Riyadh Conference Planning Meeting (invitation only)	Deree Faculty Lounge (ACG)
10:00-10:45	Plenary Session 7	Pierce Theater (ACG)
10:45-11:30	Plenary Session 8 (Powered by Global Gas Center)	Pierce Theater (ACG)
11:30-12:00	Plenary Session 9	Pierce Theater (ACG)
12:00-13:00	Plenary Session 10	Pierce Theater (ACG)
13:00-14:00	Lunch	Pierce Theater Patio (ACG)
13:00-14:00	Poster Session 2	Pierce Corridor (ACG)
14:00-14:45	Plenary Session 11	Pierce Theater (ACG)
14:45-15:30	Plenary Session 12	Pierce Theater (ACG)
15:30-16:15	Plenary Session 13	Pierce Theater (ACG)
16:15-17:00	Plenary Session 14	Pierce Theater (ACG)
17:00-18:30	15 Concurrent Sessions	Pierce Classrooms (ACG)
19:15	Departure of shuttle buses	ACG Entrance
20:00-20:30	Art Exhibition by Kostas Spiropoulos	Book Castle , Stavros Niarchos Foundation Cultural Center
21:00-23:00	Dinner Award ceremonies	Lighthouse , Stavros Niarchos Foundation Cultural Center

Day 4 | Saturday, September 24, 2022

09:00-10:00	Milan Conference Planning Meeting (invitation only)	Alba Graduate Business School (ACG) - Room 103
10:00-11:30	12 Concurrent Sessions	Alba Graduate Business School (ACG)
11:30-12:30	Plenary Session 15	Alba Graduate Business School Ground Floor Auditorium (ACG)
12:30-12:45	Closing Remarks	Alba Graduate Business School Ground Floor Auditorium (ACG)
12:45-13:30	Light lunch	Alba Graduate Business School Atrium
13:30	Departure of shuttle buses	Alba Graduate Business School Entrance
14:00	Acropolis Hill Tour	

General Conference Chairs

Spiros Papaefthimiou, President, HAEE; Assoc. Professor, Technical University of Crete
Kostas Andriosopoulos, Coordinator of the Board for Energy Transition of HAEE; Professor, Audencia Business School

International Program Committee Chair

Emilios Galariotis, Board Member, HAEE; Associate Dean for Research, Audencia Business School

Local Organizing Committee Chair

Evi Ekonomou, General Manager, HAEE

PhD Committee Chair

Georgia Giannakidou, PhD candidate, Audencia Business School

COMMITTEES

International Program Committee Members

Carlo Andrea Bollino, Professor of Economics, University of Perugia; Professor of Energy Economics, University LUISS; Honorary President, Italian Association for Energy Economics (AIEE)
Christophe Bonnery, President, French Association for Energy Economics
Derek Bunn, Professor, London Business School; Founding Editor, Journal of Energy Markets
Haris Doukas, Associate Professor at the School of Electrical & Computer Engineering, National Technical University of Athens; Editor, Operational Research International Journal
Jean-Michel Glachant, President, IAEE; Director, Florence School of Regulation; Holder of the Loyola de Palacio Chair
Khaled Guesmi, Professor of Finance, Paris School of Business; Director, Center of Research for Energy and Climate Change
Peter Hartley, President, IAEE; George A. Peterkin Professor of Economics, Rice University
George Ioannou, Professor, Athens University of Economics and Business; CEO, EnEx Group
Soteris Kalogirou, Editor-in-Chief, Renewable Energy Journal; Professor, Cyprus University of Technology
Michael Konsolakis, Professor, Technical University of Crete
Kyriaki Kosmidou, Vice-President, HAEE; Professor, Aristotle University of Thessaloniki
Evangelos Kyritsis, Board Member, HAEE; Senior Analyst, Statkraft
Georgia Makridou, Treasurer, HAEE; Assistant Professor, ESCP Business School, UK
Charles F. Mason, Associate Dean for Research, University of Wyoming; Editor-in-Chief, Economics of Energy and Environmental Policy Journal
Michael Pollitt, Professor, Cambridge Judge Business School; Vice President for Publications, IAEE
Aaron Praktiknjo, Professor, RWTH Aachen University; IAEE Vice President for Conferences
Ricardo Raineri, Professor at Catholic University of Chile; Former President, IAEE
Manolis Souliotis, Board Member, HAEE; Associate Professor, University of Western Macedonia
Konstantinos Tsagarakis, Professor, Democritus University of Thrace
David Williams, IAEE Executive Director
Yukari Yamashita, Past President of IAEE; Managing Director, Energy Data and Modelling Center, Institute of Energy Economics, Japan



Wednesday, September 21, 2022

Welcome Reception

7:00pm

The reception will be held on the evening of September 21 from 7:00 - 8:30pm. It will be an excellent chance to meet new people, reacquaint and network with each other. During the event, light hors d'oeuvres and drinks will be served.

VENUE: Open Air Theater, American College of Greece
ADDRESS: 6 Grivas Street GR-153 42 Aghia Paraskevi Athens

SOCIALEVENTS

Wednesday, September 21, 2022

Athens Happy Hour

9:00pm

Right after the Welcome Reception, all Conference participants will have the chance to get a taste of Athens night life during the Athens Happy Hour. All participants attending the event will get one free drink.

VENUE: Mantzarou 3
ADDRESS: 3 Mantzarou str. 10672, Athens



Thursday, September 22, 2022

Private Guided Tour at the Acropolis Museum

8:00pm

The Acropolis Museum, a UNESCO World Heritage Site, is one of the world's ten best museums and an archaeological site-specific museum, housing more than 4000 artefacts from the Athenian Acropolis, the most significant sanctuary of the ancient city. The meeting point for the Acropolis Museum is the entrance of the American College of Greece.

ADDRESS: Dionysiou Areopagitou 15, 11742, Athens
TICKETS: Price (per person): 10,00 €

Thursday, September 22, 2022

Gala Dinner at the Acropolis Museum Restaurant

9:00pm

After the private guided tour at the Acropolis Museum, dinner will be served at the Acropolis Museum Restaurant. Located on the Museum's second floor, the restaurant has panoramic views of the Acropolis and Athens' other historic hills.



Friday, September 23, 2022

Art Exhibition by Konstantinos Spiropoulos

8:00pm

The attendees will have the unique opportunity to admire the art painting exhibition by Mr. Konstantinos Spiropoulos, a representative of the contemporary European painting, who will present artworks inspired by the theme of the conference, which is no other than energy.

VENUE: Book Castle, Stavros Niarchos Foundation Cultural Center
ADDRESS: Syggrou Avenue 364, 17674, Kallithea

Friday, September 23, 2022

Dinner at Lighthouse

9:00pm

The spectacular Lighthouse is situated on top of the Greek National Opera's new home, and it is protected by the "Magic Carpet," the SNFCC's Energy Canopy, covered with photovoltaic panels spanning a whole hectare.

VENUE: Lighthouse, Stavros Niarchos Foundation Cultural Center
ADDRESS: 364 Syggrou avenue, 17674, Kallithea



Saturday, September 24, 2022

The Acropolis Hill Tour

2:00pm

Among the sights of the Acropolis of Athens is the Parthenon, temple that dominates the hill of the Acropolis at Athens, built in the mid-5th century BCE and dedicated by the Athenians to Athena Parthenos, the patron of their city. The meeting point for the Acropolis Hill Tour is the entrance of the Alba Graduate Business School at 2:00pm.

MEETING POINT: Entrance of the Alba Graduate Business School (2:00pm)
TICKETS: Price (per person): 8,00 €

PLENARY SESSIONS

Thursday, September 22, 2022

Venue: Pierce Theater (ACG)

10:00-10:20 WELCOME REMARKS

Speakers: **Spiros Papaefthimiou**, HAEE President; Professor, Technical University of Crete
David G. Horner, President, The American College of Greece
Kostas Axaroglou, Dean, Alba Graduate Business School
Peter Hartley, IAAE President; George A. Peterkin Professor Rice University

10:20-10:30 OPENING REMARKS

Fatih Birol, Executive Director, International Energy Agency (video)
Kostas Skrekas, Minister of Environment and Energy, Hellenic Republic (video)

10:30-10:40 ONE-ON-ONE DISCUSSION

Aristotelis Chantavas, Head of Europe Area, Enel Green Power; President, SolarPower Europe (online)
 with **Spiros Papaefthimiou**, HAEE President; Professor, Technical University of Crete

10:40-11:30 PLENARY 1: REPOWERING THE EU ENERGY SECTOR BY 2030 AND BEYOND

- Revised NECP Plans and Policies toward energy diversification and green affordable energy
- Reducing EU's reliance on Natural Gas – Temporary and Long-term options
- The transformation of the energy sector – Strategies and Plans

Chair: **Kostas Andriosopoulos**, CEO, Akuo Energy Greece; Professor of Energy Economics, Audencia Business School

Speakers: **Alexandra Sdoukou**, General Secretary of Energy and Mineral Resources, Ministry of Environment and Energy, Hellenic Republic
Yiannis Yiarentis, President and CEO, DAPEEP
Sotiris Kapellos, Chief Operating Officer (COO) – BoD Member, Hellenic Petroleum Renewable Energy Sources S.A.
Giannis Karydas, Chief Executive Officer, Renewable and Battery Storage Business Unit, Copelouzos Group

11:30-12:15 PLENARY 2: GREEN ENERGY TRANSITION DURING THE UNPRECEDENTED ENERGY CRISIS: IS IT TIME TO STEP BACK OR MOVE FORWARD?

- Energy crisis: Opportunity or threat for EU's Energy Transition?
- Revamping fossil-fuel investments or accelerating RES investments?
- Pathways for safe and sustainable energy supply

Chair: **Carlo Bollino**, Professor, Universities of Perugia and LUISS; Visiting Researcher, KAPSARC; Honorary President, Italian Association for Energy Economics (AIEE)

Speakers: **Andreas Poullikkas**, Chairman, Cyprus Energy Regulatory Authority
Christophe Bonnery, Programme Director, Paris School of Economics; President, French Association for Energy Economics
Apostolos Petropoulos, Energy Modeller, World Energy Outlook Team, International Energy Agency (online)
Panagiotis Doulas, Director and Member of the Executive Committee,

12:15-13:00

PLENARY 3: RES AT THE FOREFRONT OF ENERGY SECURITY AND AFFORDABLE ENERGY COSTS (Pierce Theater)

- Integrating renewable energy: opportunities and challenges
- Reducing electricity costs by using RES in the wholesale market – Capacity and limitations
- Interrelation between Energy Security and Renewable Energy Sources deployment

Chair: **Michael Pollitt**, Professor of Business Economics, Cambridge Judge Business School

Speakers: **Eric Scotto**, Chairman and Co-Founder, Akuo Energy
Pierre-Arthur Lestrade, VP Europe, EDF Renewables
Konstantinos Eleftheriadis, Partner, Deloitte Greece

13:00-13:45

PLENARY 4: ENERGY MARKETS IN THE EU: WHAT PRICING MECHANISMS SHOULD WE ADOPT MOVING FORWARD?

- Surging Commodity prices, price setting mechanisms – Is it time for an EU market redesign?
- Liquidity of long-term markets and competitiveness between market operators
- EU Gas price cap and other measures to mitigate energy prices

Chair: **Victor Grigorescu**, Former Minister of Energy, Romania

Speakers: **Alex Papalexopoulos**, CEO & President, ECCO International, Inc. USA; CEO & Chairman of the Board, ZOME Energy Networks, Inc. USA
Septimiu Rusu, Development Manager, Romanian Commodities Exchange
Nikos Frydas, Principal, Energy Advisor, Grant Thornton
Emmanouil Kalaitzakis, Director, Strategy & Business Development, EnExGroup

13:45-15:00

Lunch

15:00-15:10

MIT AWARDED CASE STUDY: ARTIFICIAL INTELLIGENCE & ENERGY EFFICIENCY

Michalis Manis, CEO, Ensign
Apollonas Konstantopoulos, COO, Ensign

15:10-16:15

PLENARY 5: SMART INFRASTRUCTURE: A VEHICLE TO TACKLE THE ENERGY CRISIS AND ENERGY POVERTY

- Reducing energy consumption – Paving the way for optimized energy resources' use in smart cities
- Boosting Sustainable Electromobility – Support Actions, Challenges, and Advantages
- Alleviate household and industrial energy costs by implementing smart technologies and developing micro-grids

Chair: **Spiros Papaefthimiou**, HAEE President; Professor, Technical University of Crete

Keynote Speakers: **Kostas Ach. Karamanlis**, Minister of Infrastructure and Transport, Hellenic Republic
Matthew Lodge, British Ambassador to the Hellenic Republic

Speakers: **Maria Spyraiki**, Member of the European Parliament, Nea Dimokratia Party
Ioannis Mitropoulos, General Manager, Fysiko Aerio - The Hellenic Energy Company
Soteris Kalogirou, Editor-in-Chief, Renewable Energy Journal; Professor, Cyprus University of Technology

16:15-17:00

PLENARY 6: USA-EU ENERGY COOPERATION: RETHINKING GLOBAL ENERGY SECURITY

- US recent climate bill as an enabling factor for USA-EU cooperation
- Powering EU's energy diversification in the short and long-term
- New Oil & Gas discoveries, energy efficiency and clean energy technologies toward Russian fossil fuels independency

Chair: **Olga Khakova**, Deputy Director for European Energy Security, Global Energy Center at Atlantic Council

Speakers: **Aristofanis Stefatos**, CEO, Hellenic Hydrocarbon Resources Management S.A.
Gulmira Rzayeva, Senior Research Fellow, Oxford Institute for Energy Studies [\(online\)](#)
John Jimison, President, Energy Future Services, Inc.

17:00-18:30 CONCURRENT SESSIONS

Friday, September 23, 2022

Venue: Pierce Theather (ACG)

10:00-10:45 PLENARY 7: CLEAN ENERGY PROJECTS: INVESTMENT MAGNETS AND INNOVATION DRIVERS

- The importance of renewable energy in the economic growth and GDP
- Financing clean energy projects: Prospects and challenges
- Innovation in policy, technology and finance for supporting infrastructure to advance clean energy

Chair: **Dimitris Pefanis**, Director of Financial and Business Content, DPG Digital Media

Keynote Speakers: **George J. Tsunis**, United States Ambassador to the Hellenic Republic
Adonis Georgiadis, Minister of Development and Investments, Hellenic Republic

Speakers: **Pavlos Mylonas**, CEO, National Bank of Greece
Manos Manousakis, Chairman and CEO, Independent Power Transmission Operator

10:45-11:30 PLENARY 8: GAS AS A MAINSTAY OF SECURITY OF SUPPLY: PROSPECTS AND CHALLENGES Powered by **Global Gas Center**

Chair: **Naji Abi-Aad**, Senior Consultant and Author on Middle East Oil and Gas Issues

Speakers: **Julidé Yasar-Sonjoux**, General Director, France Gaz Maritime
Panayiotis Mitrou, Global Gas Segment Director, Lloyd's Register
Thierry Bros, VP Policy & Research, Tellurian

11:30-12:00 PLENARY 9: HYDROGEN AND ALTERNATIVE FUELS: THE GREEN 'SILVER BULLET' OR DISTANT HOPE?

- The future of green hydrogen and alternative fuels in the European Energy Landscape
- EU and National Policies and strategies to develop a green hydrogen economy
- Enabling Green Hydrogen: Investment trends and opportunities

Chair: **Anne Neumann**, Professor, NTNU, Dept. of Industrial Economics and Technology Management; Research Director NTNU Energy Transition Initiative

Speakers: **Mariarosa Baroni**, President, NGV Italy [\(online\)](#)
Panagiotis Grammelis, Director of Research, Chemical Process and Energy Resources Institute, Centre for Research and Technology Hellas
Constantinos Papalucas, Energy Expert, Coordinator of the National Hydrogen Committee, Ministry of Environment & Energy

12:00-13:00

PLENARY 10: WINTER IS COMING IN THE MIDST OF A "PERFECT STORM" IN THE ENERGY SECTOR – POLICIES AND MEASURES

- Emergency energy plans – Balancing social impact and energy-saving necessity
- Natural gas shortages: Electricity sector portfolio and safeguards
- Energy Prices hikes: Future trends and mitigation measures

Chair: **Nevenka Hrovatin**, Professor of Economics, University of Ljubljana; VP, SAE

Speakers: **Majid Al Moneef**, Chairman, International Advisory Committee of King Abdullah Petroleum Studies and Research Center (KAPSARC)
Clara Poletti, Chair of the Agency for the Cooperation of Energy Regulators (ACER); Board Member at ARERA
Boyko Nitzov, Senior Associate Fellow, Energy and Climate Program, CSD
Georg Erdmann, Professor, Institute for Energy Technology, Berlin University of Technology; Past President, IAEE
Yanos Michopoulos, Course Leader, New Energy Business School

13:00-14:00

Lunch

14:00-14:45

PLENARY 11: ENERGY CRISIS: THE DAMOCLEAN SWORD OVER THE EUROPEAN ECONOMY

- EU's economic outlook: Inflation rates and the cost-of-living crisis
- Energy subsidy expenditure and State budget
- Tax policy measures as an option to offset high energy prices

Chair: **Haris Doukas**, Associate Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA); General Secretary, HELORS

Speakers: **Ioannis Ghikas**, Deputy Permanent Representative of Greece to the EU [\(online\)](#)
Vicente Hurtado Roa, Head of the Energy Taxation and other Indirect Taxes Unit, European Commission, Belgium [\(online\)](#)
Miguel Palacios, Professor of Management & Executive Education Associate Academic Dean, ESCP Business School
Adonis Yatchew, Professor of Economics, University of Toronto; Editor-in-Chief, The Energy Journal

14:45-15:30

PLENARY 12: ELECTRICITY NETWORKS: THE SPINE OF THE ENERGY SECTOR'S DECARBONIZATION

- Electricity network investments and RES deployment
- Electricity interconnections and green energy supply in the Eastern Mediterranean region
- The Three D's Pillars in a green economy: Decarbonization, Decentralization, Digitalization

Chair: **Georgios Papaefthymiou**, Principal Power System Operation and Security, ELIA GRID International

Speakers: **Adam Sieminski**, Senior Advisor to the Board, KAPSARC
Vasilis Georgiou, Managing Director, Protasis
Charles Mason, Associate Dean for Research, University of Wyoming; Editor-in-Chief, Economics of Energy and Environmental Policy Journal

15:30-16:15

PLENARY 13: A BRAVE NEW ENERGY WORLD

- Global energy supply and geopolitical challenges
- The role of USA, OPEC and new emerging economies in the energy transition
- Energy crisis and new international equilibrium: Energy shortages, climate goals and disrupted supply chains

Chair: **Kostas Andriosopoulos**, CEO, Akuo Energy Greece; Professor of Energy Economics, Audencia Business School

Speakers: **Nikos Tsafos**, Chief energy adviser to the Prime Minister of Greece
Maria Rita Galli, CEO, DESFA
Leonidas Drollas, Independent Energy Consultant [\(online\)](#)
Bassam Fattouh, Director, Oxford Institute for Energy Studies; Professor, School of Oriental and African Studies, University of London [\(online\)](#)

16:15-17:00 **PLENARY 14: THE NEW REALITY IN RES INVESTMENTS**

- The role of PPA in the development of large-scale Solar PV projects
- Solar PV market in the view of REPowerEU
- Investment opportunities and challenges

Chair: **Thomas Lamnidis**, Managing Director, Lamnidis Law;

Speakers: **George Kremlis**, Principal Advisor on Energy, Climate and Circular Economy Issues to the Greek Prime Minister [\(online\)](#)
Panayiotis-Peter Contis, CEO Advisor, Ameresco
Stefanos Lialios, Country Manager Greece - Cero Generation
Konstantinos Zygoras, Group CEO, SUNEL Group
Anastasios Tosios, Deputy CEO, EYDAP

17:00-18:30 **CONCURRENT SESSIONS**

Saturday, September 24, 2022

Venue: Alba Graduate Business School

10:00-11:30 **CONCURRENT SESSIONS**

11:30-12:30 **PLENARY 15: THE NEW PATHWAYS FOR A SUSTAINABLE ENERGY TRANSITION**

- Short-term vs Long-term Energy Transition horizon: Where should we focus on?
- Are existing tools, policies, and frameworks sufficient to define transition pathways?
- How price volatility, energy supply uncertainty and climate change affect the pathways towards climate neutrality?

Chair: **George Ioannou**, Professor, Athens University of Economics and Business

Speakers: **Stijn Van Hummelen**, Managing Director, Cambridge Econometrics (Belgium)
José Maillet, Head of Gaia, Audencia Business School [\(online\)](#)
Fereidoon Sioshansi, President, Menlo Energy Economics
Cem Avci, Professor, Bogazici University; Director of Energy Policy Research Center and TRAEE Board Member

12:30-12:45 **CLOSING REMARKS**

Spiros Papaefthimiou, HAEE, President; Professor, Technical University of Crete
Carlo Di Primio, President, Italian Association for Energy Economics (AIEE)

12:45-13:30 **LIGHT LUNCH**

CONCURRENT SESSIONS

Thursday, September 22, 2022



01

SESSION

Petroleum

SESSION CHAIR:
Muhammad Akimaya

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 400

Oil spot price forecasting with variable uncertainty: a review of some novel methods

Author: Krzysztof Drachal

Presenter: Krzysztof Drachal, Faculty of Economic Sciences, University of Warsaw

An International Comparison of OPEC Announcements Effect on Stock Indices

Authors: Constantin Mellios¹, Amine Loutia¹ & Kostas Andriosopoulos²

Presenter: Amine Loutia¹

¹University Paris Panthéon-Sorbonne ²Audencia Business School

Macroeconomic Indicators and Stock Price: An Empirical Analysis on the United States Listed Oil Enterprises

Authors: Kostas Andriosopoulos¹, Kyriaki Kosmidou², Dimitrios Kousenidis², Ioannis Negakis³ & Victoria Patsika⁴

Presenter: Dimitrios Kousenidis

¹Audencia Business School ²School of Economics; Aristotle University of Thessaloniki, Greece

³Plymouth Business School; University of Plymouth,

⁴UK Cardiff Business School; University of Cardiff

Designing a model for the cost-optimal decommissioning and refurbishment investment decision for gas networks: application on a real test bed in Austria until 2050

Authors: Hans Auer & Sebastian Zwickl-Bernhard

Presenter: Sebastian Zwickl-Bernhard

Energy Economics Group (EEG), Technische Universität Wien

A note on the effectiveness of supply-side climate policies in the European natural gas market

Authors: Daan Hulshof & Machiel Mulder

Presenter: Daan Hulshof

University of Groningen

EU liberalization policies and natural gas prices: Understanding the current energy crisis

Author: Roberto Cardinale

Presenter: Roberto Cardinale

School of Business, The American University in Cairo

How dependent are European electricity systems and economies on natural gas?

Authors: Christina Kockel¹, Lars Nolting¹, Kevin Pacco², Carlo Schmitt², Albert Moser² & Aaron Praktikno¹

Presenter: Christina Kockel

¹RWTH Aachen, Institute for Future Energy Consumer Needs and Behavior (FCN)

²RWTH Aachen, Institute for High Voltage Equipment and Grids, Digitalization and Energy Economics (IAEW)

Early nuclear power plant phase-out and nuclear decommissioning funds in the New York electricity market

Authors: Muhammad Maladoh Bah & Hannes Weigt

Presenter: Muhammad Maladoh Bah

University of Basel

Invention, innovation, and diffusion of nuclear reactor technologies: a multi-level analysis applied to the nuclear sector of the United States

Authors: Fanny Böse, Björn Steigerwald & Christian von Hirschhausen

Presenter: Fanny Böse

Technische Universität Berlin

Nuclear bias in energy scenarios – a review and results from an in-depth analysis of long-term decarbonization scenarios

Authors: Jens Weibezahn^{1,2}, Björn Steigerwald², Christian Breyer³ & Christian von Hirschhausen²

Presenter: Björn Steigerwald

¹Copenhagen School of Energy Infrastructure ²Technische Universität Berlin ³Lappeenranta University of Technology

Nuclear in a decarbonized European power system: Insights from a capacity expansion and power system simulation model

Authors: Arthur Lynch¹, Yannick Perez¹, Sophie Gabriel¹, Gilles Mathonnière¹, Sergio-Leo Vargas-Aranda¹ & Valentin Satge²

Presenter: Arthur Lynch

¹Institute for Techno-Economics of Energy Systems (I-tésé), French Alternative Energies and Atomic Energy Commission (CEA), Université Paris Saclay ²Université Grenoble-Alpes

04

SESSION

Electricity 1

SESSION CHAIR:
Michael Pollitt

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 403

05

SESSION

Electricity 2

SESSION CHAIR:
Jonas Savelsberg

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 404

06

SESSION

Renewables 1

SESSION CHAIR:
César De Jesús

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 405

Energy community ex-post electricity and cost allocation in practice – the Austrian example

Author: Bernadette Fina

Presenter: Bernadette Fina

AIT Austrian Institute of Technology

Impacts of traffic data on day-ahead residential load forecasting

Authors: Aksornchan Chaianong, Christian Winzer & Mario Gellrich

Presenter: Aksornchan Chaianong

Center for Energy and the Environment, School of Management and Law, Zurich University of Applied Sciences

Deployment of industry-flexibility for TSO-DSO coordinated redispatch in Austria

Authors: Regina Hemm, Tara Esterl, Helfried Brunner, Barbara Herndler, Sawsan Henein, Sophie Knöttner, Christian Schützenhofer, Sarah Wimmereder, Viktor Zobernig

Presenter: Regina Hemm

AIT Austrian Institute of Technology

The impact of energy transition on local grid costs and consequences for yardstick regulation: empirical analysis for the Netherlands

Authors: Floris van Montfoort¹, Peter T. Dijkstra² & Machiel Mulder¹

Presenter: Floris van Montfoort

¹University of Groningen ²Authority for Consumers and Markets

Agent modeling of terre and mari balancing markets to study the economic impact of market order standardization

Authors: Florent Cogen^{1,2}, Fabien Roques², Frédéric Bienvenu¹ & Virginie Dussartre¹

Presenter: Florent Cogen

¹Réseau de Transport d'Électricité ²Université Paris Dauphine-PSL

Decarbonizing the industry sector and its effect on electricity transmission grid operation - implications from a modelbased analysis for Germany

Authors: Martin Lieberwirth & Hannes Hobbie

Presenter: Martin Lieberwirth

TU Dresden, Chair of Energy Economics

Combining congestion management methods in near real-time balancing platforms

Authors: Marie Girod^{1,2}, Efthymios Karangelos³, Emily Little^{1,2}, Viktor Terrier², Virginie Dussartre², Jean-Yves Bourmaud², Oualid Jouini¹ & Yannick Perez¹

Presenter: Marie Girod

¹CentraleSupélec ²Réseau de Transport d'Électricité ³Université de Liège

Integration of electric vehicles into transmission grids: A case study on the generation-load adequacy in Europe in 2040

Authors: Rémi Lauvergne^{1,2}, Yannick Perez² & Mathilde Françon¹

Presenter: Rémi Lauvergne

¹Réseau de Transport d'Électricité ²CentraleSupélec

Renewables expansion and supporting infrastructures for a net-zero energy system transition of Germany by 2050

Authors: Mengzhu Xiao, Shima Sasanpour, Hedda Gardian, Sonja Simon, Carina Harpprecht & Thomas Pregger

Presenter: Mengzhu Xiao

German Aerospace Centre (DLR), Institute of Networked Energy Systems

Wind power development in Germany: spatial planning instruments and externality trade-offs

Authors: Charlotte Geiger, Paul Lehmann, Philip Tafarte, Elisabeth Wolfram

Presenter: Philip Tafarte

Leipzig University

Bringing power to the people of Uganda: determinants of solar photovoltaics adoption in Uganda

Authors: Grace Alinaitwe

Presenter: Grace Alinaitwe

School of Economics and Business, Norwegian University of Life Sciences

Spatial analysis of the effects of the dismantling of end-of-life wind turbines in Germany

Authors: Imke Rhoden, Stefan Vögele & Andrew Ross

Presenter: Imke Rhoden

Institute of Energy and Climate Research -Systems Analysis and Technology Evaluation, Forschungszentrum

03

SESSION

Nuclear Energy

SESSION CHAIR:
Anas Abuzayed

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 402

07

SESSION

Renewables 2

SESSION CHAIR:
Anna Sandhaas

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 413

08

SESSION

Energy & the Environment 1

SESSION CHAIR:
Lisa Ryan

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 414

09

SESSION

Energy & Environment 2

SESSION CHAIR:
Guillaume Boissonnet

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 416

Optimization of wave overtopping in nearshore wave energy converter systems

Authors: George Romosios & Theofanis Karambas
Presenter: George Romosios
Aristotle University of Thessaloniki, Civil Engineering Department

Economic assessment of district heating potentials in EU-27 countries

Authors: Mostafa Fallahnejad, Lukas Kranzl, Marcus Hummel & Andreas Müller
Presenter: Mostafa Fallahnejad
Energy Economics Group (EEG), Technische Universität Wien

Two-stage stochastic optimization of district heating and cooling system investment and dispatch with high shares of geothermal sources and aquifer thermal energy storage

Authors: Sebastian Zwickl-Bernhard & Hans Auer
Presenter: Marcus Otti |Energy Economics Group (EEG), Technische Universität Wien

Spatial clustering of renewable timeseries for region generation in European electricity expansion planning models

Authors: Kristof Phillips, Jorge A. Moncada, Hakan Ergun & Erik Delarue
Presenter: Kristof Phillips | KULeuven

Investigation of citizens' attitudes towards energy transition. Evidence from the region of Western Macedonia - Greece

Author: Maria Spyraiki, Constantin Mellios, Kostas Andriosopoulos, N. Papadopoulos, Sofia-Natalia Boemi
Presenter: Maria Spyraiki | European Parliament, Nea Dimokratia Party

Building a climate resilient Hellenic electricity distribution network: impact assessment of extreme weather events through case study analysis, mitigation interventions and adaptation best practices based on lessons learnt from international experience

Authors: Aikaterini Gkika¹, Dr. Efstratios Zacharis², Asterios Zafeirakis² & Dr. Efthymios Lekkas¹
Presenter: Aikaterini Gkika
¹National & Kapodistrian University of Athens ²Hellenic Electricity Distribution Network Operator

Development of a methodological framework for enhancing the resilience of military infrastructure against climate change impacts/case study: 116 Combat Wing, Araxos, Ahaia, Greece

Authors: Ilias Manolis¹, Dr. Athanasios Sfetsos², Pr. Christos Makropoulos³ & Antonios Skouloudis⁴
Presenter: Ilias Manolis
¹Head of Hellenic Minsistry's of National Defence Department of Infrastructure and Environmental Protection ²Environmental Research Laboratory Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety National Centre for Scientific Research "Demokritos" ³School of Civil ngineering, National Technical University of Athens
⁴Department of Environment, University of the Aegean

What if Canada were an EU member? Canadian hydrogen policy in a European context

Author: André Plourde | Presenter: André Plourde, Carleton University

Economic and environmental aspects of biomass-based gases for the transport and energy sectors in the European Union

Authors: Frank Radosits, Amela Ajanovic & Reinhard Haas | Presenter: Frank Radosits
Energy Economics Group (EEG), Technische Universität Wien

How much are individuals willing to pay to offset their carbon footprint? the role of information disclosure and social norms

Authors: Joachim Schleich¹ & Sven Alsheimer²
Presenter: Joachim Schleich
¹Grenoble Ecole de Management ²Fraunhofer Institute Systems & Innovation Research

Modelling Germanies energy transition within a 1.5°C-CO₂-budget

Authors: Patrick Jürgens, Julian Brandes, Markus Kaiser & Christoph Kost
Presenter: Patrick Jürgens | Fraunhofer Institute for Solar Energy Systems ISE

Optimal selection of greenhouse gas emissions abatement measures under uncertainty: the case of Cyprus

Authors: Marios Karmellos¹, Chryso Sotiriou² & Theodoros Zachariadis¹
Presenter: Marios Karmellos | ¹The Cyprus Institute ²Cyprus University of Technology

Did Covid-19 change the decarbonization path? a panel VECM approach

Authors: Gonçalo Toscano Rico, Margarida Catalão-Lopes & Inês Carrilho-Nunes
Presenter: Inês Carrilho-Nunes | Instituto Superior Técnico, Universidade Lisboa

Towards an Effective Methane Emissions Management: Monitoring, Reporting and Verification

Authors: Maria Spyraiki, Constantin Mellios, Kostas Andriosopoulos, Sofia-Natalia Boemi
Presenter: Maria Spyraiki European Parliament, Nea Dimokratia Party

10

SESSION

Energy Efficiency 1

SESSION CHAIR:
Antonios Katris

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 501

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SESSION

Energy Efficiency 2

SESSION CHAIR:
Jelena Zoric

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 502

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SESSION

Transportation 1

SESSION CHAIR:
Anne Neumann

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 626

Assessing the effect of green taxation of private cars on economic welfare in Israel

Authors: Yanai Ankaoua, Ofir D. Rubin, Stav Rosenzweig & Aviv Steren
Presenter: Yanai Ankaoua
Ben-Gurion University of the Negev, Israel

High speed rail and sustainable mobility: a life cycle assessment of the Spanish AVE network

Authors: Andoni Kortazar, Gorka Bueno & David Hoyos
Presenter: David Hoyos
University of the Basque Country UPV/EHU

Price and cross price elasticities of energy carrier specific demand in the residential sector

Authors: Anita Thonipara
Presenter: Anita Thonipara
Institute for Small Business Economics, University of Göttingen

Impact of energy labels on selecting houses of consumers: an experiment on flaming effects of information

Authors: Mieko Fujisawa¹ & Yukihide Kurakawa²
Presenter: Mieko Fujisawa
¹Kanazawa University ²Kanazawa Seiryō University

How the pace of residential heat electrification impacts the energy system?

Authors: Christian F. Calvillo, Antonios Katris, Oluwafisayo Alabi, Jamie Stewart, Long Zhou & Karen Turner
Presenter: Christian F. Calvillo
Centre for Energy Policy, University of Strathclyde

What impacts the strength of perceived barriers and drivers to energy efficiency in manufacturing small and medium-sized enterprises

Authors: Janez Dolšak, Nevenka Hrovatin & Jelena Zorić
Presenter: Janez Dolšak
School of Economics and Business, University of Ljubljana

Retrospective panel data study of energy-efficient retrofits: the relevance of social capital and housing-related lifestyle

Authors: Ivana Jovović, Andreja Cirman, Nevenka Hrovatin & Jelena Zorić
Presenter: Ivana Jovović
School of Economics and Business, University of Ljubljana

Information is power: the combined effect of regulators and retailers' actions to improve consumer welfare in residential energy markets

Authors: Hester Huisman, Evert de Haan, Machiel Mulder & Jaap Wieringa
Presenter: Hester Huisman
University of Groningen

Economics of sustainable hydrogen-fuels for trucking, shipping, and aviation

Authors: Jonas Martin¹, Anne Neumann¹ & Anders Ødegård²
Presenter: Jonas Martin
¹Norwegian University of Science and Technology ²SINTEF

On the energy economics of green hydrogen for driving fuel cell passenger cars

Author: Amela Ajanovic
Presenter: Amela Ajanovic
Energy Economics Group (EEG), Technische Universität Wien

The competition of zero-emission vehicle technologies in road freight

Authors: Bessie Noll¹, Tobias S. Schmidt¹ & Bjarne Steffen^{2,3}
Presenter: Bjarne Steffen
¹Energy and Technology Policy Group, ETH Zürich ²Climate Finance and Policy Group, ETH Zurich ³Center for Energy and Environmental Policy Research, Massachusetts Institute of Technology

A common methodology for fuel price comparison at a common unit aligned with EU consumers perception

Authors: Antonis Peppas¹, Aristomenis Skyllakos², Chrysa Politi¹, Ilias Pasios² & Sotirios Kottaridis¹
Presenter: Antonis Peppas
¹School of Mining and Metallurgical Engineering, Laboratory of Metallurgy, National Technical University of Athens ²Ministry of Infrastructure, Transport and Networks, Directorate of Technical Control and Vehicle Service Facilities

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SESSION

Energy & the Economy 1

SESSION CHAIR:
Lucia Visconti Parisio

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 627

The aggregate effects of the structure of information in low-carbon transition policies: an empirical application

Authors: Darius Corbier & Frédéric Gonand

Presenter: Darius Corbier

Paris-Dauphine University PSL

Interaction of dynamic pricing and local market considering distribution networks with high PV penetration

Authors: Yucun Lu, Jelle Meus & Erik Delarue

Presenter: Yucun Lu

KU Leuven

An econometric analysis of the impact of auctions on innovation in solar PV.

Authors: Pablo Del Río González¹ & Leticia García-Martínez²

Presenter: Pablo Del Río González

¹Spanish National Research Council ²Universidad Carlos III

Decarbonisation of industry and flexibility for the power system: technical, economic and regulatory potentials and limitations of the use of green hydrogen in the industry sector in Germany

Authors: Marius Tillmanns, Jan Priesmann & Aaron Praktiknjo

Presenter: Marius Tillmanns

RWTH Aachen University, Institute for Future Energy Consumer Needs and Behavior (FCN), Chair for Energy System Economics

Security analysis of generation shift key methods in the European day ahead market

Authors: Emily Little^{1,2}, Efthymios Karangelos³, Jean-Yves Bourmaud², Nicolas Lhuillier² & Yannick Perez¹

Presenter: Emily Little

¹CentraleSupélec ²Réseau de Transport d'Electricité ³University of Liège

An analysis of driving factors of CO₂ emissions by final energy consumption in Africa

Authors: Eunhye Lee & Daegon Cho

Presenter: Eunhye Lee

Graduate School of Green Growth, KAIST College of Business

System adequacy assessment for Switzerland: How flow-based market coupling affects a non-FBMC neighbor

Authors: Ali Darudi¹, Moritz Schillinger¹, Jonas Savelsberg², Ingmar Schlecht³ & Hannes Weigt¹

Presenter: Ali Darudi

¹University of Basel ²ETH Zürich ³ZHAW Winterthu

Directional spillovers between electricity and fossil fuel prices in a hydrothermal power generation market: the case of Brazil and Canada

Authors: Andrés Oviedo-Gómez¹, Sandra Milena Londoño-Hernández¹ & Diego Fernando Manotas-Duque²

Presenter: Andrés Oviedo-Gómez

¹School of Electrical and Electronic Engineering, Universidad del Valle ²School of Industrial Engineering, Universidad del Valle

Making the EU carbon border adjustment mechanism acceptable and climate friendly for least developed countries

Authors: Sigit Perdana & Marc Vielle

Presenter: Sigit Perdana

LEURE-Ecole Polytechnique Fédérale de Lausanne

Carbon tax with alternative tax-design schemes for Ethiopia: a general equilibrium analysis

Authors: Govinda R. Timilsina¹ & Samuel Sebsibie²

Presenter: Govinda R. Timilsina

¹World Bank, Washington, DC ²World Bank Country Office, Ethiopia

Estimating the value of distributed demand side management technologies in Central Western Europe - assessing regional differences in view of locational pricing mechanisms

Authors: Hendrik Kramer, Florian Boehnke & Christoph Weber

Presenter: Hendrik Kramer

University Duisburg-Essen

Asymmetric product with linked bids for the Swedish balancing market? Case study from a hydro-dominated market

Authors: Ksenia Poplavskaya¹, Stefan Strömer¹, Johann Mayr¹ & Niclas Damsgaard²

Presenter: Ksenia Poplavskaya

¹AIT Austrian Institute of Technology ²Svenska kraftnät

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SESSION

Energy Security & Geopolitics 1

SESSION CHAIR:
Jean-Pierre Favennec

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 628

Security analysis of generation shift key methods in the European day ahead market

Authors: Emily Little^{1,2}, Efthymios Karangelos³, Jean-Yves Bourmaud², Nicolas Lhuillier² & Yannick Perez¹

Presenter: Emily Little

¹CentraleSupélec ²Réseau de Transport d'Electricité ³University of Liège

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Presenter: Eunhye Lee

Graduate School of Green Growth, KAIST College of Business

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Presenter: Andrés Oviedo-Gómez

¹School of Electrical and Electronic Engineering, Universidad del Valle ²School of Industrial Engineering, Universidad del Valle

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LEURE-Ecole Polytechnique Fédérale de Lausanne

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University Duisburg-Essen

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Authors: Ksenia Poplavskaya¹, Stefan Strömer¹, Johann Mayr¹ & Niclas Damsgaard²

Presenter: Ksenia Poplavskaya

¹AIT Austrian Institute of Technology ²Svenska kraftnät

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SESSION

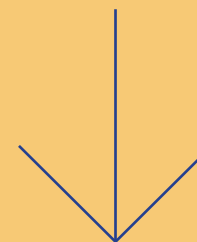
Energy Modelling 1

SESSION CHAIR:
Olivier Massol

Thursday, September 22
17:00-18:30 EEST
American College of Greece
Room 705

CONCURRENT SESSIONS

Friday, September 23, 2022



01

SESSION

Electricity 3

SESSION CHAIR:
Ksenia Poplavskaya

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 400

Environmental impacts of redispatching in the decarbonized electricity systems

Authors: Daniel Davi-Arderius¹ & Tim Schittekatte²

Presenter: Daniel Davi-Arderius

¹Barcelona Institute of Economics (IEB) ²Massachusetts Institute of Technology

Adoption of distributed energy resources under uncertainty: Incorporating insights from prospect theory into an agent-based model

Authors: Jorge Andrés Moncada & Erik Delarue

Presenter: Jorge Andrés Moncada

KU Leuven, Dept. Mechanical Engineering

New technology adoption: advanced metering infrastructure strategic implementation planning using fanp

Authors: Erny Anugrahany^{1,2} & Athor Subroto²

Presenter: Erny Anugrahany

¹PT PLN (Persero) ²Universitas Indonesia

The impact of vector coupling on prices questions thoroughly the economics of the power system

Authors: Marie-Alix Dupré la Tour^{1,2}, Virginie Dussartre¹, Marc Le Du¹ & Philippe Quirion²

Presenter: Marie-Alix Dupré la Tour

¹Réseau de Transport d'Électricité (RTE) ²Centre for International Research on Environment and Development (CIRED)

Dissemination potential in Germany of peer-to-peer energy trading and local electricity markets as an option of decentralized energy system

Authors: César De Jesús & Niklas Hartmann

Presenter: César De Jesús

Offenburg University of Applied Sciences, Offenburg, Germany

Assessing the potential of demand response as a source of flexibility in low-carbon power systems: insights from the French case.

Authors: Julien Ancel & Olivier Massol

Presenter: Julien Ancel

Climate Economics Chair

Mid-term electricity price forecasting: the role of fundamental drivers

Authors: Niaz Bashiri Behmiri¹, Carlo Fezzi² & Francesco Ravazzolo^{1,3}

Presenter: Niaz Bashiri Behmiri

¹Free University of Bozen-Bolzano ²University of Trento ³BI Norwegian Business School

Energy demand and carbon emissions reduction potential of dynamic pricing of electricity: systematic review and meta-analysis of experimental evidence.

Authors: Tarun Khanna, Jan Minx & Klaas Miersch

Presenter: Tarun Khanna

Mercator Research Institute on Global Commons and Climate Change

The impact of fluctuating renewables on flexibility needs in electricity systems

Authors: Franziska Schöniger¹, Ulrich Morawetz², Gustav Resch¹ & Reinhard Haas¹

Presenter: Franziska Schöniger

¹Institute of Energy Systems and Electrical Drives, Technische Universität Wien ²University of Natural Resources and Life Sciences, Wien

A novel approach for supporting the strong uptake of wind energy in Austria

Authors: Gustav Resch & Franziska Schöniger

Presenter: Gustav Resch

Energy Economics Group (EEG), Technische Universität Wien

Monte Carlo simulation-based economic risk assessment in energy communities

Authors: Klara Maggauer, Bernadette Fina & Carolin Monsberger

Presenter: Klara Maggauer

AIT Austrian Institute of Technology

Conditions for competitive, sustainable and democratic electricity systems

Author: Reinhard Haas

Presenter: Reinhard Haas

Energy Economics Group (EEG), Technische Universität Wien

02

SESSION

Electricity 4

SESSION CHAIR:
Christophe Bonnery

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 401

03

SESSION

Renewables 3

SESSION CHAIR:
Bjarne Steffen

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 402

04

SESSION

Renewables 4

SESSION CHAIR:
Silke Johanndeiter

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 403

05

SESSION

Energy & the Environment 3

SESSION CHAIR:
Charles Mason

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 404

06

SESSION

Energy & the Environment 4

SESSION CHAIR:
Christian Calvillo

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 405

Severity of variable renewably energy droughts in Europe

Author: Martin Kittel

Presenter: Martin Kittel

German Institute for Economic Research (DIW Berlin)

Economic analysis of pumped hydro storage

Authors: Marlene Sayer, Reinhard Haas & Amela Ajanovic

Presenter: Marlene Sayer

Energy Economics Group (EEG), Technische Universität Wien

Flexibility of hydropower in Colombia to balance the growing share of intermittent renewables

Authors: Sara Restrepo Echeverri & Camila Ochoa

Presenter: Sara Restrepo Echeverri

Universidad EIA- Escuela de Ingeniería de Antioquia Universidad

Unlocking Indonesia potential resources to achieve net zero emission 2060:

Generation expansion planning using leap

Authors: Satria Putra Kanugrahan¹ & Dzikri Firmansyah Hakam²

Presenter: Satria Putra Kanugrahan

PT PLN (Persero) ^{1,2}, Institut Teknologi PLN (ITPLN)², Institut Teknologi Bandung (ITB)^{1,2}

Digital transformation of the energy system – country specific strategies for market implementation of technologies

Author: Philipp Riegebauer

Presenter: Philipp Riegebauer

Centre of Innovative Energy Systems, University of Applied Sciences Dusseldorf, Germany

Regulation of CCS transportation infrastructures: insights from a bi-level optimization problem

Authors: Adrien Nicolle & Olivier Massol

Presenter: Adrien Nicolle

Climate Economics Chair

Why do mitigation pathways differ? The role of scenario assumptions and model features

Authors: Jim Skea, Richard Green, Alaa Al-Khourajie, Raphael Slade & Lain Staffell

Presenter: Richard Green

Imperial College London

Trading of renewable targets – who wins and who loses

Authors: Jan Abrell¹, Sebastian Rausch¹ & Jonas Savelsberg²

Presenter: Jonas Savelsberg

¹Department of Environmental and Climate Economics, ZEW Mannheim ²Center for Energy Policy and Economics, ETH Zürich

Policies for accelerating the decarbonisation of the European cement industry

Authors: Paul Tautorat¹, Natalija Ljubić², Bjarne Steffen¹ & Tobias S. Schmidt¹

Presenter: Paul Tautorat

¹Swiss Federal Institute of Technology, ETH Zürich ²Swiss Federal Institute of Technology Lausanne, EPFL Lausanne

The importance of building export capacity in a new Scottish CO2 transport and storage industry: Alleviating domestic funding pressures and securing green growth and jobs transition

Authors: Antonios Katris¹, Karen Turner¹, Oluwafisayo Alabi¹, Christian Calvillo¹, Jamie Stewart¹ & Julia Race²

Presenter: Antonios Katris

¹Centre for Energy Policy, University of Strathclyde ²Naval Architecture Ocean and Marine Engineering, University of Strathclyde

From Kyoto to Glasgow: Volumes and types of unused Certified Emission Reductions (CERs)

Authors: Raphaela Kotsch¹ & Regina Betz²

Presenter: Raphaela Kotsch

¹University of Zurich & Zurich University of Applied Sciences ²Center for Energy and the Environment (CEE), Zurich University of Applied Sciences

Decarbonisation strategies implementing biochar as a carbon capture technology

Authors: Meritxell Domènech Monfort, Anna Sandhaas & Niklas Hartmann

Presenter: Meritxell Domènech Monfort

Offenburg University of Applied Sciences, Offenburg, Germany

07

SESSION

Energy Efficiency 3

SESSION CHAIR:
Joachim Schleich

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 413

Flexible energy system integration using concept development and demonstration for rural district heating networks in Austria

Authors: Demet Suna¹, Nicolas Pardo-Garcia¹, Christian Fuchs¹, Carolin Monsberger¹, Ralf-Roman Schmidt¹ & Josef Petschko²
Presenter: Demet Suna

¹AIT Austrian Institute of Technology ²Agrar Plus GmbH

Beyond energy efficiency: do consumers care about life cycle properties of household appliances?

Authors: Mark Olsthoorn¹, Antoine Durand², Corinne Faure¹, Marie-Charlotte Guetlein¹ & Joachim Schleich¹

Presenter: Mark Olsthoorn

¹Grenoble Ecole de Management ²Fraunhofer Institute for Systems and Innovation Research

How choice complexity in liberalized markets hurts the demand for green electricity

Authors: Rebekka Bärenbold¹, Manuel Grieder² & Renate Schubert^{2,3}

Presenter: Rebekka Bärenbold

¹Faculty of Business and Economics, University of Basel ²UniDistance Suisse ³Zurich University of Applied Sciences (ZHAW)

Energy storage investment in Switzerland: a household model approach coupling heat and electricity

Authors: Héctor Ramírez Molina¹, Arthur Rinaldi², Benjamin Schroeteler³ & Hannes Weigt¹

Presenter: Héctor Ramírez Molina

¹University of Basel ²University of Geneva ³Lucerne University of Applied Sciences and Arts

Willingness to pay for energy retrofits by homeowners and landlords

Authors: Jonas Bender & Heike Wetzel

Presenter: Jonas Bender

Institute of Economics, University of Kassel

Model-predictive control of a residential heating system with machine-learning based models, forecasts, and signal-processing

Authors: Oscar Villegas Mier, Sascha Niro, Federico Alpi, Rainer Gasper & Michael Schmidt

Presenter: Oscar Villegas Mier

Offenburg University of Applied Sciences, Offenburg, Germany

Evaluating the impact of road freight uberization on the trucking sector

Authors: Xun Xu¹, Tianduo Peng², Zhandong Xu³ & Mi Gan³

Presenter: Xun Xu

¹King Abdullah Petroleum Studies and Research Center (KAPSARC) ²Institute of Climate Change and Sustainable Development, Tsinghua University ³Southwest Jiaotong University

Can loss aversion explain the energy efficiency gap? A stated choice experiment

Authors: Thilo K. G. Haverkamp & Andreas Ziegler

Presenter: Andreas Ziegler

University of Kassel

A spatio-temporal approach for EV charging infrastructure deployment

Authors: Marc-Olivier Metais^{1,2}, Oualid Jouini², Yannick Perez², Jaâfar Berrada¹ & Emilia Suomalainen³

Presenter: Marc-Olivier Metais

¹Institut Vedecom ²LGI CentraleSupélec ³Syke

Spatially distributed charging profiles for electric vehicles in Germany

Authors: Menna Elsobki, Marius Tillmanns & Aaron Praktiknjo

Presenter: Menna Elsobki

RWTH Aachen University, Institute for Future Energy Consumer Needs and Behavior (FCN), Chair for Energy System Economics

Spatio-temporal modeling of fast-charging along highway networks for stress-testing planned charging infrastructure capacity

Authors: Antonia Golab, Sebastian Zwickl-Bernhard, Theresia Perger & Hans Auer

Presenter: Antonia Golab

Institute of Energy Systems and Electrical Drives, Energy Economy Group (EEG), Technische Universität Wien

Vehicle electrification as an alternative transport fuel technology - cost-effectiveness in reducing CO2 emissions

Authors: Tamara Sheldon¹, Rubal Dua² & Omar Abdullah Alharbi³

Presenter: Rubal Dua

¹University of South Carolina, USA ²King Abdullah Petroleum Studies and Research Center (KAPSARC)

10

SESSION

Energy & the Economy 2

SESSION CHAIR:
Frédéric Gonand

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 501

11

SESSION

Energy Access 1

SESSION CHAIR:
Hans Auer

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 502

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SESSION

Energy Security & Geopolitics 2

SESSION CHAIR:
Adonis Yatchew

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 626

The effect of hydrogen production growth to the renewable energy sector

Author: Muhammad Akimaya | Presenter: Muhammad Akimaya

King Fahd University of Petroleum and Minerals

Demand response and curtailment in an isolated system with up to 80% variable renewables

Authors: Sarah Stanley¹, Lisa Ryan² & Damian Flynn¹ | Presenter: Sarah Stanley

¹School of Electrical and Electronic Engineering, University College Dublin (UCD) ²School of Economics, University College Dublin (UCD)

Green bonds and the energy transition: Efficiency and social inequalities

Authors: Verónica Acurio Vásquez & Olivier Damette | Presenter: Verónica Acurio Vásquez

University of Lorraine, BETA

When the chips are down: an incentivized analysis of preferences for green electricity in Switzerland

Authors: Betz Regina¹, Grieder Manuel^{1,2} & Nicklisch Andreas³ | Presenter: Betz Regina

¹Zurich University of Applied Sciences ²University of Zurich ³Zentrum für wirtschaftspolitische Forschung (ZWF), Fachhochschule Graubünden

Easier Said than Done: A Supply-side critique of the EU's Plan to Eliminate Dependence on Russian Gas

Author: Theodoros Tsakiris | Presenter: Theodoros Tsakiris

University of Nicosia

Challenges and opportunities of clean cooking program in Indonesia: the journey to net zero emission

Authors: Dzikri Firmansyah Hakam^{1,2,3}, Satria Putra Kanugrahan^{1,3}, Dr. Raden Aswin Rahadi³,

Dr. Herry Nugraha¹ & Dr. Agung Wicaksono³ | Presenter: Dzikri Firmansyah Hakam

¹PT. PLN (Persero) ²Institut Teknologi PLN (ITPLN) ³Institut Teknologi Bandung (ITB)

What are consumers willing to pay for residential heating systems in Germany?

Authors: Jakob Kulawik, Christina Kockel & Aaron Praktiknjo | Presenter: Jakob Kulawik

RWTH Aachen University, Institute for Future Energy Consumer Needs and Behavior (FCN)

Impact of rising energy prices on household income and energy consumption: Analysis of efficient relief measures for the case of Germany

Authors: Jan Priesmann & Aaron Praktiknjo

Chair for Energy System Economics, E. ON Energy Research Center, RWTH Aachen University

Carbon literacy – can simple interventions help? Effect of information provision on emissions knowledge of private households

Author: Sandra Kretschmer | Presenter: Sandra Kretschmer

Friedrich-Alexander-Universität Erlangen-Nürnberg

Assessment of the impacts and substantial implications of high levels of decarbonization and clean energy by 2030 on power markets and network operations in Southeast Europe

Authors: Elliot Roseman¹, Goran Majstrovic² & Dragana Orlic³ | Presenter: Goran Majstrovic

¹US Energy Association ²Energy Institute Hrvoje Pozar ³Electricity Coordinating Center (EKC)

European economic impacts of cutting energy imports from Russia: a computable general equilibrium analysis

Authors: Marc Vielle¹, Sigit Perdana¹ & Maxime Schenckery² | Presenter: Marc Vielle

¹LEURE-Ecole Polytechnique Fédérale de Lausanne ²IFPEN, IFP School, France

How can Germany avoid the next energy crisis? Impact of an import ban of Russian energy sources on climate protection goals in Germany

Authors: Anas Abuzayed, Niklas Hartmann, Anna Sandhaas, Cesar De Jesus Tabora & Hanhee Kim

Presenter: Anas Abuzayed

Offenburg University of Applied Sciences, Offenburg, Germany

European Union's plan for a green transition – Unleashing a policy storm or a strategic guide through the energy transition in these new circumstances?

Author: Laura Huomo¹ & Cea Mittler^{2,3} | Presenter: Laura Huomo

¹Bird & Bird Attorneys Ltd ²University of Helsinki ³National University of Singapore

The EU's Southern Gas Corridor Strategy and the Eastern Mediterranean after the Second Russian-Ukrainian War: Pipelines and LNG

Author: Theodoros Tsakiris | Presenter: Theodoros Tsakiris

University of Nicosia

08

SESSION

Energy Efficiency 4

SESSION CHAIR:
Giuseppe Dellolio

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 414

09

SESSION

Transportation 2

SESSION CHAIR:
Miguel Palacios

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 416

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SESSION

Energy Modelling 2

SESSION CHAIR:
Filippos Ioannidis

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 627

Generation of industrial electricity and heat demand profiles for energy system analysis

Authors: Anna Sandhaas, Hanhee Kim & Niklas Hartmann

Presenter: Anna Sandhaas

Offenburg University of Applied Sciences, Offenburg, Germany

Econometric analysis of reserve energy demand

Authors: Laureen Deman & Quentin Boucher

Presenter: Laureen Deman

SuperGrid Institute, Grenoble Applied Economics Laboratory, Université Grenoble Alpes

How flexible electrification integrates fluctuating renewables

Authors: Leonard Göke^{1,2} & Jens Weibezahn^{1,3}

Presenter: Leonard Göke

¹Technische Universität Berlin ²DIW Berlin ³Copenhagen School of Energy Infrastructure

The role of flexibility options in deep decarbonization of the European power sector

Authors: Ozge Ozdemir¹, Anneke Vries², Paul Koutstaal¹ & Lennart Bours¹

Presenter: Ozge Ozdemir

¹Netherlands Environmental Assessment Agency (PBL) ²Utrecht University/NIOZ

Reaching climate neutrality in an isolated energy system: The case of Cyprus

Authors: Constantinos Taliotis, Theodoros Zachariadis, Elias Giannakis, Nestor Fylaktos, Marios

Karmellos & Despina Yiakoumi

Presenter: Constantinos Taliotis

The Cyprus Institute

Impact of current market distortions in commodity and energy markets on levelized costs of electricity of PV in Austria

Authors: Carolin Monsberger¹ & Gustav Resch²

Presenter: Carolin Monsberger

¹AIT Austrian Institute of Technology ²Technische Universität Wien

Scenarios for future trade flows of energy technologies

Authors: Jonas Eschmann, Marlene O'Sullivan & Thomas Baldauf

Presenter: Jonas Eschmann

Institute of Networked Energy Systems, German Aerospace Center (DLR)

The application of a new institutional economics framework to the process of decommissioning of nuclear power plants – determination of best practice approaches from France, Germany, and UK

Authors: Alexander Wimmers¹, Björn Steigerwald¹ & Christian von Hirschhausen^{1,2}

Presenter: Alexander Wimmers

¹Technische Universität Berlin ²DIW Berlin

Building-stock model based scenarios under different price signals

Authors: Ece Özer¹, Lukas Kranzl¹, Andreas Müller² & Behnam Zakeri³

Presenter: Ece Özer

¹Technische Universität Wien ²e-think, Phone ³International Institute for Applied Systems Analysis (IIASA)

Using the Shapley value to share costs of congestion management in a realistic power grid model

Author: Simon Voswinkel

Presenter: Simon Voswinkel

University of Duisburg-Essen, House of Energy Markets and Finance

Piecewise Linearization and Linepack in Operation of Integrated Electricity and Gas Systems

Authors: Christian Perau, Manuel Ruppert & Wolf Fichtner

Presenter: Christian Perau

Karlsruhe Institute for Technology, Chair of Energy Economics

The marginal abatement costs of CO2 emissions in the European chemical sector

Authors: Lennard Rekker, Machiel Mulder & Michaela Kesina

Presenter: Lennard Rekker

University of Groningen

14

SESSION

Energy Investment & Finance 1

SESSION CHAIR:
Georgia Makridou

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 628

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SESSION

Energy Modelling 3

SESSION CHAIR:
Kyriaki Kosmidou

Friday, September 23
17:30-19:00 EEST
American College of Greece
Room 705

CONCURRENT SESSIONS

Saturday, September 24, 2022



01

SESSION

Electricity 5

SESSION CHAIR:
Daniel Davi-Arderius

Saturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Amphitheater 104

Smart Market-based congestion management design for electricity markets

Authors: Lukas Maximilian Lang, Jonas Egerer, Veronika Grimm & Ulrike Pfefferer
Presenter: Lukas Maximilian Lang
Friedrich-Alexander-University Erlangen-Nürnberg, Germany

Regional power system flexibility management under an energy transition scenario:

The case of French region occitanie

Author: Théotime Coudray
Presenter: Théotime Coudray
Climate Economics Chair and Montpellier University

Analysis of electricity sources impact on Lithuania's electricity market price

Authors: Mindaugas Cesnavicius & Inga Konstantinavičiute
Presenter: Mindaugas Cesnavicius
Lithuanian Energy Institute, Laboratory of Energy Systems Research

Assessing flexibility demand and supply in the Austrian electricity market by 2020/2030

Authors: Gerhard Totschnigg¹, Gustav Resch², Franziska Schöniger² & Tara Esterl¹
Presenter: Gustav Resch
¹AIT Austrian Institute of Technology ²Energy Economics Group (EEG), Technische Universität Wien

Upscaling energy community potential to European level

Authors: Theresia Perger & Hans Auer
Presenter: Theresia Perger
Technische Universität Wien

Economic evaluation of onsite green hydrogen supply strategies for the industrial sector

Authors: Jasmine Ramsebner¹, Pedro Linares², Reinhard Haas¹ & Albert Hiesl¹
Presenter: Jasmine Ramsebner
¹Energy Economics Group (EEG), Technische Universität Wien ²Universidad Pontificia Comillas

Solar prosumage: interactions with the transmission grid

Authors: Christoph Weyhing¹, Wolf-Peter Schill², Dana Kirchm², Christian von Hirschhausen¹ & Mario Kendzior¹ | Presenter: Christoph Weyhing
¹Workgroup for Infrastructure Policy, Technische Universität Wien ²German Institute for Economic Research (DIW Berlin)

The Market Impact of Operational Risk Events in the Energy Sector

Authors: Sofia Kalatha¹, Kyriaki Kosmidou¹, Panagiotis Dontis-Charitos² & Kostas Andriosopoulos³
Presenter: Sofia Kalatha
¹Department of Economics, Division of Business Administration, Aristotle University of Thessaloniki, Thessaloniki, Greece
²Department of Finance, ESCP Business School, London, United Kingdom,
³Audencia Business School

Evaluating production processes and hydrogen supply routes for zero-emissions steelmaking in the EU

Authors: Kimon Keramidas, Silvana Mima & Adrien Bidaud
Presenter: Kimon Keramidas
Université Grenoble-Alpes, France

CO2 removal and 1.5°C: Sharing the gains from inter-regional cooperation using a game-theoretic approach

Authors: Emma Jagu¹, Solène Chiquier², Olivier Massol¹ & Niall Mac Dowell²
Presenter: Emma Jagu
¹Center for Energy Economics and Management, IFP School ²Center for Energy Economics and Management, IFP School

Industrial use or storage of CO2? A compound real options valuation for the retrofitting of coal-fired power plants

Authors: Qinghan Yu & Reinhard Madlener
Presenter: Qinghan Yu
RWTH Aachen University, Aachen, Germany

Techno-economic assessment of bio-based carbon dioxide removal using TIAM-FR

Authors: Sophie Chlela & Sandrine Selosse
Presenter: Sophie Chlela
Mines Paris, PSL University, CMA - Centre for Applied Mathematics

03

SESSION

Energy & the Environment 5

SESSION CHAIR:
Sophie Chlela

Saturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Classroom 108

04

SESSION

Energy & the Environment 6

SESSION CHAIR:
Nevenka Hrovatin

Saturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Amphitheater 204

Energy and climate proposals in the Spanish white book on tax reform

Authors: Xavier Labandeira | Presenter: Xavier Labandeira
Universidade de Vigo, Spain

Quantifying climate change measures towards mitigation and adaption optimisation

Authors: Matthew Keller, Sebastian Dickler, Dr.-Ing Noah Pflugradt, Dr.-Ing Leander Kotzur & Univ.-Prof. Dr.-Ing Detlef Stolten
Presenter: Matthew Keller
Institute for Techno-Economic Systems Analysis (IEK-3), Forschungszentrum Jülich GmbH

Could investment in infrastructure soften the pollution haven hypothesis in developing countries?

Authors: Rafaela Caetano¹, António Cardoso Marques¹, Tiago Lopes Afonso¹ & Isabel Vieira²
Presenter: Rafaela Caetano
¹NECE-UBI, University of Beira Interior ²CEGACE-UÉ, University of Évora

The resource curse and fossil electricity: resource rents and the democracy effect

Author: Zeynep Clulow & David Reiner | Presenter: Zeynep Clulow
EPRG, Judge Business School, University of Cambridge

05

SESSION

Energy Efficiency 5

SESSION CHAIR:
Philipp Riegebauer

Saturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Classroom 206

Producing synfuels from CO2, biomass, and hydrogen. Resources, routes, emissions, and economics: A European overview.

Author: Guillaume Boissonnet | Presenter: Guillaume Boissonnet
CEA I-Tésé, Saclay - Grenoble, France

What determines consumers' responsiveness to energy costs of durable goods? evidence from the Swiss appliance market

Authors: Adrian Obrist & Claudio Daminato
Presenter: Adrian Obrist
Center of Economic Research (CER-ETH), ETH Zürich

The effect of information and communication technologies on energy demand: evidence from OECD countries

Authors: Mona Chitnis¹, Steve Sorrell² & Shivani Taneja³ | Presenter: Mona Chitnis
¹Surrey Energy Economics Centre (SEEC), School of Economics, University of Surrey, Guildford
²Science Policy Research Unit (SPRU), University of Sussex
³School of Economics, University of Nottingham

Predicting prosumers, rebounds and (pro-) environmental spillovers: the case of residential photovoltaic systems

Authors: Patrick Bigler & Benedikt Janzen | Presenter: Patrick Bigler
University of Bern

A policy evaluation of electromobility in Germany

Authors: Stefanie Wolff & Christopher Borger | Presenter: Stefanie Wolff
National Organisation Hydrogen and Fuel Cell Technology (NOW GmbH)

Policy complementarities in the promotion of electric vehicles: subsidies and charging infrastructure

Authors: Lavan Teja Burra, Stephan Sommer & Colin Vance | Presenter: Lavan Teja Burra
RWI - Leibniz Institute for Economic Research

The effect of different dynamic pricing schemes on the use of e-vehicle charging infrastructure

Authors: Paul Fabianek, Ayse Tugba Atasoy & Reinhard Madlener
Presenter: Paul Fabianek
Institute for Future Energy Consumer Needs and Behavior (FCN), RWTH Aachen University

Total cost of ownership analysis of battery electric buses for public transport system in a small to midsize city

Authors: Hanhee Kim & Niklas Hartmann | Presenter: Hanhee Kim
Offenburg University of Applied Sciences, Offenburg, Germany

06

SESSION

Transportation 3

SESSION CHAIR:
Stefanie Wolff

Saturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Classroom 207

07

SESSION

Energy
Access 2SESSION CHAIR:
Bernadette FinaSaturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Classroom 208**Combining simulation and optimization for optimal energy community planning with technology diversity and multiple objectives**Authors: Miriam Schwebler & Bernadette Fina | Presenter: Miriam Schwebler
AIT Austrian Institute of Technology**Electricity grid tariffs for electrification in households: quantifying cross-subsidies across grid users**Authors: Claire Bergaentzlé¹, Philipp Andreas Gunkel¹, Mohammad Ansarin², Yashar Ghiassi-Farrokhfal² & Henrik Klinge Jacobsen¹
Presenter: Claire Bergaentzlé | ¹Technical University of Denmark ²Erasmus University**Reducing the risk of inc-dec gaming in redispatch. Comparative country analysis**Authors: Viktor Zobenrig & Ksenia Poplavskaya | Presenter: Viktor Zobenrig
AIT Austrian Institute of Technology**Data-driven household's archetypes to classify building's owner budget restrictions on investing in deep renovation**Authors: Iná Maia¹, Lukas Kranzl¹ & Andreas Müller²
Presenter: Iná Maia
¹Technische Universität Wien ²e-think

08

SESSION

Energy
Security &
Geopolitics 3SESSION CHAIR:
Andre PlourdeSaturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Amphitheater 304**Decarbonization of the Costa Rican transport sector: exploring electrification pathways for 2050**Authors: Héctor Ramírez¹, Muhammad Maladoh Bah¹, Dennis Schneider² & Guido Godínez³
Presenter: Dennis Schneider
¹University of Basel ²University of Duisburg-Essen ³University of Costa Rica**Oil and gas between climate constraints and the need for energy and mobility**Author: Jean-Pierre Favennec
Presenter: Jean-Pierre Favennec
WDCOOPERATION**Effects of Russian gas supply cut-off on the German gas transmission system**Authors: Lucas De La Fuente Munita & Dominik Möst
Presenter: Lucas De La Fuente Munita
Technische Universität Dresden**Investigating energy productivity in Africa: impact of energy efficiency and economic structural change over 1990-2017**Authors: Dr. Liu Yang¹ & Dr. Brantley Liddle²
Presenter: Dr. Liu Yang
¹African Development Bank ²National University of Singapore

09

SESSION

Energy
Investment &
Finance 2SESSION CHAIR:
Amine LoutiaSaturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Classroom 402**A green alliance with the black continent: requirements to efficiently implement a joint hydrogen economy via public-private partnerships**Authors: Lena Schreiner & Prof. Reinhard Madlener
Presenter: Lena Schreiner
RWTH Aachen University**Financial transparency and cross-border mergers and acquisitions in the extractives industries**Authors: Şevkat Özgür Speitmann¹ & Raffael Speitmann²
Presenter: Şevkat Özgür Speitmann
¹University of Vienna, Faculty of Business, Economics and Statistics ²Vienna University of Economics and Business**Bidding strategies of renewables in the Iberian electricity spot market**Authors: Silke Johanndeiter & Valentin Bertsch
Presenter: Silke Johanndeiter
Ruhr-University Bochum**Is transmission expansion for decarbonization compatible with generation competition?**Author: Timothy Brennan
Presenter: Timothy Brennan
Resources for the future

10

SESSION

Energy
Investment &
Finance 3SESSION CHAIR:
Nyakundi MichiekaSaturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Amphitheater 404**Modeling the impact of oil price changes and investment decisions on construction wages in the U.S.**Authors: Nyakundi Michieka¹, Noha H. A. Razek², Richard Gearhart¹, & Yiannis Ampatzidis³
Presenter: Nyakundi Michieka
¹California State University, Bakersfield ²University of Regina ³University of Florida**The future of renewable energy auctions: model-based assessment of long-term trends in a changing electricity system**Authors: Jasper Geipel, Gustav Resch & Florian Hasengst | Presenter: Jasper Geipel
Energy Economics Group (EEG), Technische Universität Wien**An analysis of the energy storage requirements of the Austrian federal state of Tyrol depending on transmission network capacities in 2050**Author: Florian Hasengst | Presenter: Florian Hasengst
Energy Economics Group (EEG), Technische Universität Wien**Estimation of external costs from short sea shipping. The concept of externalities surcharge**Authors: Emmanouil Doundoulakis¹, Kostas Andriosopoulos² & Spiros Papaefthimiou¹
Presenter: Emmanouil Doundoulakis
¹School of Production Engineering & Management, Technical University of Crete
²Audencia Business School

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SESSION

Energy
Modelling 4SESSION CHAIR:
Spiros PapaefthimiouSaturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Classroom 405**Exploring the mechanics of hybrid markets in a context of deep decarbonization**Authors: Alexis Lebeau^{1,2}, Marcelo Saguan¹, Marie Petit³, Yannick Perez² & Olivier Massol^{2,4}
Presenter: Alexis Lebeau
¹EDF R&D ²CentraleSupélec ³King Abdullah Petroleum Studies and Research Center (KAPSARC)
⁴IFPEN, IFP School, France**Investment in a green-hydrogen system under economic and physical uncertainties**Authors: Luis María Abadie¹ & José Manuel Chamorro²
Presenter: José Manuel Chamorro
¹Basque Centre for Climate Change ²University of the Basque Country**Efficient de-rating in modern capacity mechanisms and the interdependence with reliability metrics**Authors: Paulo Brito-Pereira¹, Pablo Rodilla¹, Paolo Mastropietro¹, Luiz Augusto Barroso^{1,2} & Carlos Batlle^{1,2,3} | Presenter: Paulo Brito-Pereira
¹Instituto de Investigación Tecnológica, Universidad Pontificia Comillas ²PSR Energy Consulting & Analytics ³MIT Energy Initiative ⁴Florence School of Regulation**The energy transition and the value of capacity remuneration mechanisms**Authors: Cinzia Bonaldo, Fulvio Fontini & Michele Moretto | Presenter: Cinzia Bonaldo
Department of Management Engineering, University of Padua, Italy

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SESSION

Energy
Modelling 5SESSION CHAIR:
Filippos IoannidisSaturday, September 24
10:00-11:30 EEST
Alba Graduate Business School
Classroom 406**Flexibility assessment for high shares of renewable energy**Authors: Thomas Baldauf, Jens Schmugge, Hans Christian Gils & Jonas Eschmann
Presenter: Thomas Baldauf
German Aerospace Center (DLR), Institute of Networked Energy Systems**Trends and long-run relations in cointegrated time series observed with noise**Authors: Matteo Pelagatti¹, Angelica Gianfreda², Paolo Maranzano¹ & Lucia Parisio¹
Presenter: Lucia Visconti Parisio
¹DEMS, Università di Milano – Bicocca ²DEMB, Università di Modena e Reggio Emilia**Nowcasting industrial production using linear and non-linear models of electricity demand**Authors: Giulio Galdi¹, Roberto Casarin², Davide Ferrari³, Carlo Fezzi¹ & Francesco Ravazzolo³
Presenter: Giulio Galdi
¹University of Trento ²Università Ca' Foscari Venezia ³University of Bozen**Assessing the impact of a CO2 tax at the margin, combined with a subsidy scheme for the Dutch Industry**Authors: Marit van Hout
Presenter: Marit van Hout
Netherlands Environmental Assessment Agency (PBL)



POSTERSESSIONS

Thursday, September 22, 2022 | 14:00 - 15:00 EEST | Pierce (ACG), Corridor

01. An assessment of High Efficiency Cogeneration in Italy, based on actual operation data

Authors: Giuseppe Dell'Olio | Presenter: Giuseppe Dell'Olio, GSE Company

02. Adoption of energy efficiency measures and renewable energy by homeowners across three major Dutch cities

Authors: Ardak Akhatova¹, Erkinai Derkenbaeva^{2,3}, Eveline van Leeuwen^{2,3}, Solmaria Halleck Vega², Gert Jan Hofstede^{2,4} & Lukas Kranzl¹ | Presenter: Ardak Akhatova

¹Technische Universität Wien (TUW), ²Wageningen University and Research (WUR), ³Amsterdam Institute for Advanced Metropolitan Solutions (AMS), ⁴North West University, South Africa

03. Strategies for wide-scale short-term PV forecasting in energy communities

Authors: Nikolaus Houben¹, Lennard Visser², Wilfried van Sark¹, Hans Auer¹, Amela Ajanovic¹ & Reinhard Haas²
Presenter: Nikolaus Houben

¹Technische Universität Wien (TUW), ²Utrecht University

04. Electric Vehicles Smart Charging: Representative Load Profiles Based on Residential Time-Varying Electricity Tariffs and Household Characteristics

Authors: Fabia Miorelli, Ulrich Frey, Hans Christian Gils & Patrick Jochem | Presenter: Fabia Miorelli
Department of Energy Systems Analysis, Institute of Networked Energy Systems, German Aerospace Center (DLR)

05. Analysis of a hybrid photovoltaic-thermoelectric system

Authors: Dimitrios Kossyvakis^{1,2}, Evangelos Hristoforou¹, George Kavvouras³ & Spyridon Koutroumpas^{1,4}
Presenter: Dimitrios Kossyvakis

¹Sensors Lab, National TU of Athens, Athens, Greece, ²Cable Hellenic Cables S.A., Athens, Greece, ³VINCI ENERGIES/OmexomHellas S.A., Athens, Greece, ⁴Tenagis S.A., Athens, Greece

Friday, September 23, 2022 | 13:00 - 14:00 EEST | Pierce (ACG), Corridor

06. A detailed life cycle assessment study of an intelligent and energy-autonomous greenhouse

Authors: Evangelos Ntousakis, Konstantinos Loukakis, Spiros Papaefthimiou
Presenter: Spiros Papaefthimiou

Industrial, Energy and Environmental Systems Lab, School of Production Engineering and Management, Technical University of Crete

07. Design and Techno-Economic analysis of a hybrid energy system for off-grid areas

Authors: Nikolaos Samaras and Spiros Papaefthimiou | Presenter: Nikolaos Samaras

Industrial, Energy and Environmental Systems Lab, School of Production Engineering and Management, Technical University of Crete

08. Development of sustainable processes for CO2 transformation into value-added chemicals by means of renewable H2

Authors: E. Mandela¹, M. Lykaki², G. Varvoutis¹, A. Lampropoulos¹, D. Ipsakis², S. Papaefthimiou², G. Marnellos^{1,3}, M. Konsolakis² | Presenter: M. Konsolakis

¹Department of Mechanical Engineering, University of Western Macedonia, ²School of Production Engineering and Management, Technical University of Crete, ³Chemical Process and Energy Resources Institute, CERTH

GENERAL INFORMATION

Address of the Conference Venue

Wednesday, Sep 21, Thursday, Sep 22, and Friday, Sep 23
All events, plenary and concurrent sessions will take place at the American College of Greece, Aghia Paraskevi Campus, 6 Gravias Street GR-153 42, Aghia Paraskevi, Athens, Greece.

Saturday, Sep 24
The Conference's plenary and concurrent sessions will take place at the Alba Graduate Business School of the American College of Greece, 6-8 Xenias Str, 115 28, Athens, Greece.

Transportation Schedule

A number of shuttle bus transports have been scheduled to assist the delegates during the conference, as follows:

DEPARTURE TIME	FROM / PICK-UP POINT	TO / DROP-OFF POINT	INTERMEDIATE STOP
Wednesday 21 September			
12:30	City Centre / Syntagma Square, in front of the Greek Parliament	Conference Venue / American College of Greece (ACG)	Hilton Hotel Athens*
17:30	City Centre / Syntagma Square, in front of the Greek Parliament	Conference Venue / American College of Greece (ACG)	Hilton Hotel Athens*
17:45	City Centre / Syntagma Square, in front of the Greek Parliament	Conference Venue / American College of Greece (ACG)	Hilton Hotel Athens*
20:40	Conference Venue / ACG entrance	Athens Happy Hour Venue / Mantzarou 3, Athens	City Centre / Syntagma Square
Thursday 22 September			
08:30	City Centre / Syntagma Square, in front of the Greek Parliament	Conference Venue / ACG	Hilton Hotel Athens*
09:00	City Centre / Syntagma Square, in front of the Greek Parliament	Conference Venue / ACG	Hilton Hotel Athens*
18:45	Conference Venue / ACG entrance	City Centre / Acropolis Museum	-
Friday 23 September			
08:30	City Centre / Syntagma Square, in front of the Greek Parliament	Conference Venue / ACG	Hilton Hotel Athens*
09:00	City Centre / Syntagma Square, in front of the Greek Parliament	Conference Venue / ACG	Hilton Hotel Athens*
18:45	Conference Venue / ACG entrance	Art Exhibition & Dinner / Stavros Niarchos Foundation Cultural Center	City Centre / Syntagma Square
23:30	Art Exhibition & Dinner / Stavros Niarchos Foundation Cultural Center	Hilton Hotel Athens*	City Centre / Syntagma Square,
Saturday 24 September			
13:45	Conference Venue / Alba Graduate Business School Entrance	City Centre / Acropolis	

*46 Vasilissis Sofias Avenue, Athens 11528



Aghia Paraskevi Campus Map



- 1 ACG Main Entrance
- 2 ACG Events Hall
(PhD Seminars Day)
- 3 Open Air Theatre
(Welcome reception)
- 4 Faculty Lounge
- 5 Pierce Theatre
(Plenary Lessons)
- 6 Pierce Classrooms
(Concurrent Sessions)
- 7 Pierce Patio
(Coffee/ Lunch breaks)
- 8 Info Point
- 9 Parking Area

17th IAEE
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Athens, September 21 - 24, 2022
**The Future of Global
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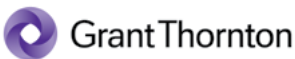
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CONTRIBUTORS



LAMNIDIS LAW



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The Independent Power Transmission Operator (IPTO) is responsible for the operation, monitoring, maintenance and development of the Hellenic Electricity Transmission System, aiming to ensure safe and uninterrupted power supply across the country. IPTO's Ten Year Network Development Plan provides for the electrical interconnection of almost all Greek islands in the High Voltage System by 2029, the strengthening and modernization of the continental power grid as well as the facilitation of Greece's transition towards a cleaner energy mix. IPTO's 5-billion-euro investment program -among others- includes the emblematic Crete-Attica power link, the completion of Cyclades and Sporades interconnections and energy storage projects.

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Akvo Energy is a French multinational company, based in Paris, active in the renewable energy sector worldwide. It operates in 18 countries and has been present in Greece since 2018. Akvo Energy develops, manufactures and operates RES projects with major technologies such as wind, photovoltaic, as well as hydroelectric. So far the company has invested more than € 2.8 billion in RES projects worldwide. Its potential includes 1.4GW projects under operation, financing and construction as well as 7 GW projects under development. Akvo Energy's presence in Greece signals the company's strong interest in the entire Balkan region as it has already completed significant investments in the area.

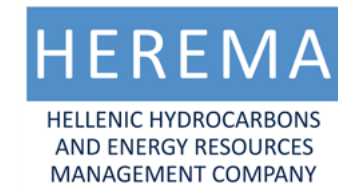
Deloitte.

Deloitte Greece is a member of one of the world's largest professional services networks, Deloitte Touche Tohmatsu since 1975. With offices in Athens, Thessaloniki, Heraklion and Patras and over 1,900 professionals, we combine an unmatched breadth and depth of capabilities in audit and assurance, consulting, financial advisory, risk advisory, tax and legal. Operating as a true multidisciplinary model we collaborate across businesses to solve the most challenging issues of our clients. We work with clients in every sector of the Greek economy to deliver innovative solutions using the latest tools and technologies. Our people are unified by a collaborative culture guiding them to lead the profession, to serve with integrity, to take care of each other and to foster inclusion. They enjoy an environment of continuous learning and opportunities, and are dedicated to making a positive impact in their communities. In 2017, we launched Deloitte Alexander Competence Center in Thessaloniki, a hub for the development of specialized technical skills and competencies, aiming to capitalize on the abundant talent in Greece and reduce brain drain. In 2019 Deloitte Foundation was founded, a non-profit voluntary organization, to make an impact that matters through initiatives promoting education, culture, environment and relief in national emergencies. In 2022 Deloitte Digital launched its services in Greece, as part of Deloitte, constituting a combination of an end-to-end digital transformation agency with a consulting firm. Through a flexible and hands-on learning experience, the Deloitte Academy helps executives to develop their knowledge, upskill and connect with market industry leaders keeping them on top of global and local market trends and best practices. KBVL, member of the Deloitte Legal international network, is an independent law firm registered with the Athens Bar, that offers legal services aligned with clients' key business objectives.



Desfa is responsible for the operation, management, utilization and development of the Greek Natural Gas System and its interconnections, in a technically sound and economically efficient way, in order to best serve its Users with safety, reliability and adequacy. Possessing extensive experience and a highly skilled workforce, Desfa, whose shareholders are, from 2018, 34% the Greek State and 66% Senfluga SA (joint company of Snam, Enagás, Fluxys and Damco), contributes decisively to the security of supply and the diversification of supply sources of Greece and the wider region, while facilitating the development of competition in the Greek energy market. On the way to a cleaner and more sustainable energy future, Desfa is transformed, with the vision of its further consolidation as a reliable partner in the framework of the ongoing international energy projects in Southeast Europe and beyond. At the same time, Desfa implements a series of significant investments for the upgrade, expansion and interconnection of the National Natural Gas System, with a key role for the smooth energy transition of Greece and the goal of its emergence as an international energy hub. On a consistent basis, Desfa also implements activities aimed at strengthening its positive social and environmental footprint, consistent in its vision to be a model of business excellence and corporate responsibility in every aspect of its operation.

SILVER SPONSORS



The Hellenic Hydrocarbons and Energy Resources Management Company (HEREMA S.A.) manages the national interests in the field of exploration, research and production of hydrocarbons and works methodically in order to enable the development of national resources and especially natural gas, which can contribute to the economic and social development of Greece. HEREMA was founded in 2011 and its only shareholder is the Greek State. The new Board of Directors, appointed by the Greek government in the summer of 2020, consists of executives from the energy, legal, shipping and financial sectors with international experience in countries such as Norway, the United Kingdom, Cyprus, the Netherlands and of course Greece. The Board of Directors of the Company in collaboration with a team of experts in HEREMA, such as geologists, engineers, environmental scientists, lawyers and economists, implements the new vision of the company in the context of the energy transition.

// howden

Howden Hellas has a long and successful history in the Greek insurance and reinsurance market, starting back in 2003 as BMS Hellas, rebranding in 2006 as Matrix Insurance & Reinsurance Brokers and since 2020 as a Howden broking Group company. With a vision to build a sustainable business for the future, Howden Hellas and Cyprus are fully aligned with the vision of the HBG. With more than 140 expert brokers, 850 large corporate clients, a team of claims lawyers & technicians, 4 offices in Athens, Thessaloniki, Ioannina, Herakleion (Crete) and Howden Cyprus, we are today the largest corporate insurance & reinsurance broker in both countries. Furthermore, Howden Hellas offers a specialized Financial Lines Team of nine (9) FI professionals handling In the Financial Lines sector with approx. 70% market share in Greece and circa 40% in Cyprus.



NATIONAL BANK OF GREECE

With its 181-year participation in the country's economic and social life, NBG is one of the most significant Greek financial organizations, as it plays a key role in efforts to support the Greek economy and enable the economic transformation of the country. The Group provides a wide range of financial products and services that meet the changing needs of businesses and individuals, including deposit and investment products, various financing facilities, brokerage, insurance, leasing and factoring services. Today Nbg's Group employs a workforce of 8.800 employees. It also has a wide distribution network of 355 branches and 1.433 ATMs in Greece, and provides services through alternative electronic networks (internet, phone and mobile banking), which enable customers to carry out easy, fast and safe everyday transactions. NBG supports Greek businesses by offering new financing tools and high-quality specialized services, placing emphasis on financing productive investments, export trade and new, innovative entrepreneurship.

SILVER SPONSORS



Faced with ongoing transformations in the world of energy, Omexom helps its clients to achieve the energy transition. Omexom draws on its expertise in all fields of electricity and gas to build low carbon energy sources and develop the grid, promote optimized energy use and implement innovative and collaborative solutions. Our projects are designed for energy producers, transmission and distribution system operators, local and regional authorities as well as their users in all territories. As an integrator, Omexom continuously looks for the best technological options and deploys the most suitable solutions for its clients' needs in complete autonomy from its suppliers. At Omexom, environment has always been at the heart of our concerns which is even more essential for the coming years. Omexom is upgrading offers by using low-carbon processes and recycled materials that preserve the environment and, at the same time, is launching new low-carbon solutions. We currently form an international network with turnover of €3,8 B, in which the values of Omexom are shared by more than 23,500 employees, in 37 countries via 435 Business Units. Omexom is a VINCI Energies brand.



Fysiko Aerio the Hellenic Energy Company is an integrated energy provider, active in the electricity market too, after its long history as a natural gas provider. With a legacy of more than 160 years and the priceless experience and expertise they imply, the company is continuously upgrading its customer experience, investing in modern technologies. The permanent goal of the company is to provide personalized services, a holistic energy experience as well as additional benefits to its customers, going beyond the standard relationship with energy. Plus, it builds its own ecosystem being active in new areas of sustainability, such as electromobility and smart solutions for domestic and business use. Fysiko Aerio counts more than 600 selling points across Greece and 510,000 households, 18,000 business customers, 1,400 industrial and public sector's customers and is also implementing its geographical expansion plan throughout Greece, remaining always close to its consumers 24/7.



SPYROPOULOS SA is a commercial - engineering company that offers complete turn key solutions in renewable energy installations including all Development – Engineering – Procurement – Construction Services. The company was founded in 2004 as a construction company and has a portfolio of 35 MW installed PV plants, over 150MW under Development and is currently responsible for the electromechanical maintenance over 150 MW plants as well as for panel cleaning and weed management of over 500MW. SPYROPOULOS SA has developed a unique technical branch network in Greece, operating six branches, one in Kato Achaia which is the headquarters of the company and five more, one in Thebes, one in Ioannina, Kalamata, Xanthi, Larissa, while there is provision for further expansion of the network to other key locations in Greece. The company is also active in the fields of construction, renovations and maintenance of commercial and industrial buildings and also in the field of electro-mechanical installations and maintenance, covering the entire range of works needed to achieve the best result.

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