



International Conference on Energy & Sustainability
Academy of Science of Albania, November 14, 2025 Tirana



INTERNATIONAL CONFERENCE ON ENERGY AND SUSTAINABILITY (ICES 2025)

ORGANIZED

BY

AKADEMY OF SCIENCE OF ALBANIA



November 14-15, 2025, Tirana



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PROGRAMME

First Day 14.11.2025

Hour	Activity
8:30 –9:00	Welcome & Registration
9:00–9:30	Opening Remarks & Greeting Speech “Aleks Buda” Hall, Academy of Sciences “F.S. Noli” Square, Tirana Presidency of the Academy of Sciences Znj. Elda Xhumari, Deputy Minister of Environment Representative of Albanian Energy Regulatory Authority Z. Ardian Islami, Director in Ministry of Energy and Infrastructure. Znj. Violeta Nushi, Dean Faculty of Architecture, University of Pristina, Kosova
9:30–11:15	Plenary Session “Aleks Buda” Hall, Academy of Sciences “F.S. Noli” Square, Tirana Chair: Jorgaq Kaçani, Rajmonda Bualoti Key Lectures: Prof. Massimo La Scala, <i>Is the Energy Transition Possible? Challenges and Opportunities</i> , Department of Electrical and Information Engineering, Politecnico di Bari, Italy Prof. Paul-Louis Meunier, <i>21 st century pervasive technologies: a new paradigm within the energy generation mix</i> , ESTP-Paris FRANCE Prof. Sergio Camporeale, <i>The Energy Transition in the Mediterranean Countries: Technological Challenges and Development Opportunities</i> , Department of Mechanic, Mathematic and Management, Politecnico di Bari, Italy
11:15–11:45	Coffee Break
11:45 –13:45	Paralel presentations



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	Session 1 “<i>Electric Power System and their Sustainability</i>” “Aleks Buda” Hall, Academy of Sciences “F.S. Noli” Square, Tirana Chair: Marialis Çelo, Massimo La Scala, Arben Gjuka Paralel presentations Session 2 “<i>Energy Technologies and Efficiency</i>” Library “Academic Books”, Academy of Sciences “F.S. Noli” Square, Tirana Chair: Jorgaq Kaçani, Sergio Camporeale
13:45 – 14:30	Lunch Break/Catering
14:30–16:30	Presentations Session 3 “<i>The Sustainable Buildings, Communities and Cities</i>” “Aleks Buda” Hall, Academy of Sciences “F.S. Noli” Square, Tirana Chair: Armand Vokshi, Paul Louis Meunier, Violeta Nushi
16:30 –17:00	Discussion/ Day Closing Jorgaq Kaçani, Rajmonda Bualoti



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Second Day 15.11.2025

Hour	Activity
9:00 –9:30	Welcome & Registration
9:30–10:00	Opening Remarks: “Aleks Buda” Hall, Academy of Sciences “F.S. Noli” Square, Tirana Chair: Jorgaq Kaçani
10:00–11:30	Plenary Session: “Aleks Buda” Hall, Academy of Sciences “F.S. Noli” Square, Tirana Chair: Bardhyl Muceku, Ana Fociro Key Lectures: Olivier Sissmann, From source rocks to reservoir: Exploring geologic H₂ potential in Precambrian Rocks , Research Scientist in Geochemistry, IFP Energies Nouvelles, Paris FRANCE Isabelle Moretti, The natural hydrogen exploration started in various countries. Why? Where? By whom?, – Université de Pau et des Pays de l’Adour (UPPA) & Sorbonne Université, Member of the French Academy of Technologies
11:30–12:00	Coffee Break
12:00 –13:30	Presentations Session 4 <i>“Natural Hydrogen and Sustainable Energy Resources”</i> “Aleks Buda” Hall, Academy of Sciences “F.S. Noli” Square, Tirana Chair: Bardhyl Muceku, Ana Fociro
13:30 – 14:00	Discussion/ Day Closing



DETAIL PROGRAM

First Day 14.11.2025

Session 1 Electric Power System and Their Sustainability

11:45 –13:45

1.	Petraq Lika, <i>The regulatory role of the Energy Regulatory Authority (ERE) towards a secure, sustainable and smart system (2025–2030)</i> , Albanian Energy Regulatory Authority (ERE), Tirana, Albania
2.	Arben Gjukaj, Vezir Rexhepi, Bajram Neshati, Qamil Kabashi, Kjani Guri, <i>Electrical Energy Storage as a key solution for improving the flexibility of the Kosovo Power System</i> , University of Prishtina, BESS Project at MCA Kosovo, Prishtina, University for Business and Technology—UBT, Kosovo
3.	Viktor Rrotani, Rajmonda Bualoti, Marialis Çelo, Thanas Lola, <i>Power System Security Assessment Under Increasing Penetration of Renewable Energy Sources in South-East Europe</i> , Polytechnic University of Tirana, Albania
4.	Kjani Guri, Arben Gjukaj, Vezir Rexhepi, <i>Wind Power Generation, Technical Analysis, and Challenges of Its Integration into the Kosovo Transmission Network – Case Study: Zatriqi Wind Park</i> , University for Business and Technology—UBT, University of Prishtina, Kosovo
5.	Andi Hida, Rajmonda Bualoti, Altin Velsula, <i>Optimal Integration of Photovoltaic Systems into Distribution Feeder</i> , Polytechnic University of Tirana, Albania
6.	Vezir Rexhepi, Arben Gjukaj, Nora Sadiku-Dushi, Mendim Hajdari, <i>Energy imbalances: implications for operational stability and the electricity market in Kosovo</i> , University of Prishtina, Kosovo
7.	Olsi Karapici, Viktor Rrotani, <i>Cybersecurity in Power Systems: Challenges and Opportunities</i> , Polytechnic University of Tirana, Albania
8.	Ledio Luku, Astrit Bardhi, Marialis Çelo, <i>Contingency Analysis in a Wind Power Integrated Power System</i> , Polytechnic University of Tirana, Albania
9.	Aldi Muçka, Viktor Rrotani, Nike Shanku, <i>Analysis of Inrush Current for 20MVA Power Transformer for Solar Plant (Case Study)</i> , Polytechnic University of Tirana, Tirana, Albania



Session 2 Energy Technologies and Efficiency

11:45 –13:45

1.	Ramadan Alushaj, Jorgaq Kaçani, Energy Analysis for Comfort and Hygiene Hot Water Supply (UNGS) in Housing and Hotels , Polytechnic University of Tirana – Energy Department.
2.	Flamur Bidaj, Jorgaq Kaçani, Analysis of Albania's Challenges for the Hydrogen Use in Energy and Transport Sectors , Polytechnic University of Tirana – Energy Department.
3.	Arjan Jovani, Role of dams and their reservoirs in energy transition and climate change adaptation in Albania , Expert.
4.	Ardian Islami, Renovation Building Stock in Albania . Ministry of Energy and Infrastructure.
5.	Edmond Zeneli, Energy and economic analysis of a heat pump/ PV system in South-East Albanian climate conditions , Polytechnic University of Tirana – Energy Department.
6.	Niko Naska, Optimal Operation of Cascade Hydropower Plants Using Hydrogen Storage , Expert.
7.	Agresa Qosja, Lorenc Malka, Machine Learning Forecasting Models for Hydropower Production Management , University Metropolitan Tirana, GIPSA-lab, University Grenoble Alpes, CNRS, Polytechnic University of Tirana, Albania



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Session 3 The Sustainable Buildings, Communities and Cities

14:30 –16:30

1.	Violeta Nushi, Paradigm Shift in Building Envelope Design: From Passive Facades to Sustainable Energy Performance , Faculty of Architecture, University of Pristina, Kosova
2.	Adriana Lamaj, Megan Bici, Sokol Dervishi, Computational Assessment of Energy Performance in Adaptive Reuse of Underground Spaces in Albania , Epoka University, Tirana, Albania
3.	Gjergji Islami, Denada Veizaj, Architectural Strategies for the Sustainable Retrofit of the Socialist Housing Stock , Faculty of Architecture and Urbanism, Polytechnic University of Tirana, Albania
4.	Ani Tola (Panariti), Teuta Peshkopia, Paul Louis Meunier, Architecture as an energy source: potentials of the built environment , Faculty of Architecture and Urbanism, Polytechnic University of Tirana, Albania; ESTP-Paris FRANCE
5.	Boriana Vrusho, Armand Vokshi, Bio-Architecture in Residential Buildings: Toward a Greener Urban Future in Tirana, Albania , Faculty of Architecture and Urbanism, Polytechnic University of Tirana, Albania
6.	Armand Vokshi, Some of the challenges of improving residential energy consumption , Faculty of Architecture and Urbanism, Polytechnic University of Tirana, Albania



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Session 4 Natural Hydrogen and Sustainable Energy Resources

12:00 –13:30

1.	Bardhyl Muceku, Natural hydrogen (H₂) exploration in the Albanian ophiolite belt , Department of Earth Sciences, Faculty of Geology and Mining, Polytechnic University of Tirana
2.	Christophe Voisin, Passive Hydrogen Monitoring with Seismic Noise , Research Scientist (Chargé de Recherche), Institut des Sciences de la Terre (ISTerre), CNRS, Grenoble, France
3.	Anaïs Lavoué, Exploring natural hydrogen in the Bulqizë ophiolite (Albania): a multi-physics approach , Postdoctoral Researcher in H ₂ and He exploration, Institut des Sciences de la Terre (ISTerre), Grenoble, France