

# ENERGY 2023

ENERGY INDEPENDENCE IN THE REGION IN THE LIGHT OF GLOBAL DISTURBANCES - A new reality

# PRELIMINARY PROGRAM

September 12 - 15, 2023 Zlatibor, Hotel Mona

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### WHY ATTEND COUNSELING

OVER 300 PARTICIPANTS FROM THE ENERGY FIELD FOUR PANELS ON THE TOPIC OF KEY NEWS IN ENERGY OVER 60 CONFERENCE ANNOUNCEMENTS

Dear Energy Specialists,

The series of successfully completed international conferences in previous years certainly obliges us to invite you to take part in the traditional international conference which is being organized from **September 12-15**, **2023**, **Hotel Mona**, **Zlatibor**. The high reputation that ENERGY conferences enjoy in the domestic and international professional circles requires both the right topic and attractiveness of the upcoming XXXVIII international conference, and therefore the name:

#### ENERGY 2023 - ENERGY INDEPENDENCE IN THE REGION IN THE LIGHT OF GLOBAL DISTURBANCES - A new reality

Our Conferences have become the leading regional platform in the energy sector, where science and profession meet energy companies and the energy-related industry to analyze and improve the existing technical and technological solutions, regulatory framework and economic-financial environment and thus pave the way for energy development.

The strategic goals of the energy transition, which could be basically reduced to the decarbonization of the sector with the widespread use of renewable energy sources, are partly blurred by the current energy crisis. Future trends will tell whether the crisis is accelerating or slowing down the transition. The profession must analyze all aspects to find the optimal trajectory towards the decarbonized sectors of energy, transport, heating/cooling, industry, ... It is also necessary to answer to what extent the public, private sectors and citizens should take the burden of the energy transition. The energy specialists should also answer the question of whether nuclear energy is "green energy", which is increasingly advocating by an interest group of states with nuclear power plants. The open question is certainly whether energy companies know how to plan and then successfully manage energy systems with 100% renewable sources ... What will be the role of energy storage in future energy systems, will, in addition to pumped storage hydro power plants, utility scale battery energy storage systems be crucial and inevitable, and what are the future development trends? Can this be done without the use of hydrogen technologies, and if not, which part of the final consumption will be covered by hydrogen. Is it a third, or less, or even more than a third? We are facing a radical transformation of energy sector that cannot succeed without the application of a holistic concept, that is, without integral energy approach in the broadest sense of the word. Full digitalization of the sector is an urgent need to build a smart energy infrastructure in which decentralization of production is one of the important principles because prosumer institutions and the energy cooperative, i.e., micro-grid, enable locally produced green kWh not to put additional complexity for transmission system operator. It is already clear that only the complementarity of centralized and decentralized production can respond to the growing needs of electricity consumption due to electrification of the transport, heating, industry, ... On the other hand, the puzzle is unsolvable without a proactive role of consumer side, and because of that load management and demand response getting more, and more importance.

The problems of balancing the energy system represent the main challenges in the process of decarbonization of the energy system. Successfully solving these challenges requires the development of energy storage technologies, which, in addition to traditional pumped storage hydropower plants, must also include new technologies, such as battery plants, green hydrogen technologies and heat storage. In addition to technological progress, the reorganization and regionalization of the electricity market is also necessary, primarily regarding the provision of power reserve services for balancing purposes. The development of the transmission system and the strengthening of interconnections is a prerequisite for the development of an efficient market and represents one of the main tasks in the development of regional security of the electric power systems.

Global challenges in areas of climate and environmental protection signify looking at the bigger picture and complex interdependencies on our planet, continent, union, energy community, region, and even housing community. A sustainable growth strategy should not be linked to the exploitation of expendable resources. This is especially important for our country and the region. The sustainability of the energy sector remains a permanent goal together with the well-known concepts of security of supply and the development of competitiveness in the energy sector. That is why, during this and all future international conferences, the Association of Energy Specialists will insist on an integral approach to energy and strive to make such concept the basis of both the Serbian and regional energy sector.

We believe that the following **topics** will dominate in the scientific and professional papers and contributions that will be submitted to the Program-Organizing Committee of the Conference:

- strategic planning within energy transition process;
- just transition
- analysis of the current crisis in the energy sector;
- new possibilities for financing the energy transition with the specifics of energy regulations;
- modern power systems and smart technologies;
- modern technologies in the usage of coal, oil and gas and in the production of heat and electricity;
- modern technologies for energy storage and their integration in energy systems;
- analysis of energy systems (modern analytical methods and tools for modelling energy systems, energy surveys, systems analysis, results);
- connection between environmental protection, energy efficiency and optimal energy development;
- environmental, economic, and social effects of using renewable energy sources
- sustainable energy development from the perspective of reducing the impact on climate change;
- software tools aimed at increasing the speed and quality of design, construction and exploitation, as well as the energy efficiency of energy and industrial equipment and plants;
- modern scientific research, technical-technological improvements and innovations in the energy sector;
- modern control systems and automatic regulation in energy and process technology;
- student academic projects and
- promotional-marketing presentations and exhibitions about energy achievements in the energy sector, industry, agriculture, public I systems, traffic, construction, renewable and new energy sources.

We believe that this 38th international gathering will have a significant and positive impact on the further development of the energy sector, both in Serbia and in the region. It will provide a chance for the best papers selected by the review jury of the Program and Organizational Committee of the Conference, and which will also be written in English (after passing additional reviews), to be published, not only in our scientific journal *"Energy, Economy, Ecology"* (ISSN: 0354-8651), but also in the prominent international journal from the SCI list *"International Journal of Electrical Power& Energy Systems"* (ISSN: 0142-0615). All information will be available through the <u>savezenergeticara.online</u>.

Yours sincerely,

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**Milun Babić** President of the Assembly of the Association of Energy Specialists

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**Nikolá Rajaković,** President of the Association of Energy Specialists

### AREAS OF INTEREST

- (1) RENEWABLE ENERGY SOURCES (SUN, WIND, WATER, BIOMASS, BIOGAS, GEOTHERMAL ENERGY, ...);
- (2) CONVENTIONAL ENERGY AND ITS CONNECTIONS WITH ENERGY TRANSITION.
- (3) CONNECTING THE ELECTRICITY SECTOR WITH THE HEATING, TRANSPORT, AND INDUSTRY SECTORS.
- (4) ELECTRICITY NETWORKS AND ENERGY MARKETS.
- (5) ENERGY EFFICIENCY (HOUSEHOLDS, PUBLIC SECTOR, INDUSTRY, BUILDINGS...);
- (6) ENERGY STORAGE TECHNOLOGIES.
- (7) MULTISECTORAL TASKS IN THE FIELD OF ENVIRONMENTAL IMPROVEMENTS ON THE ROAD OF THE REPUBLIC OF SERBIA TOWARDS THE EU;
- (8) ECONOMIC AND REGULATORY-DEVELOPMENT ISSUES OF THE ENERGY SECTOR.

#### **ORGANIZATIONAL - PROGRAM - SCIENTIFIC COMMITTEE**

#### Co-presidents of the organizational-program-scientific committee:

Prof. Dr. Milun Babić, President of the Assembly of the Association of Energy Engineers Prof. Dr. Nikola Rajaković, President of the Energy Association

#### Secretariat of the organizational-program-scientific committee:

Dr. Ilija Batas Bijelić, research associate, member of the Board of Directors of the Energy Association
Prof. Dr. Dušan Gordić, Editor-in-chief of the magazine "Energy"
Sandra Alagić, General Secretary of the Energy Association
Marko Popović, Director of BBN Congress Management doo

#### Members:

**Prof. Dr. Neven Duić,** Faculty of Mechanical Engineering and Shipbuilding, University of Zagreb, Croatia **Prof. Dr. Peter Virtič,** Faculty of Energy Technology, University of Maribor, Slovenia

**Prof. Dr. Mirza Kušljugić,** Faculty of Electrical Engineering, University of Tuzla, Bosnia and Herzegovina **Prof. Dr. Adriana Cid Manea,** Polytechnic-University of Timisoara, Romania

**Prof. Dr. Vladimir Terzija,** Center for Energy Science and Technology, Skolkovo Institute of Science and Technology, Russia

Dr. Dejan Ostojić, Member of the Supervisory Board, JP Elektroprivreda Srbije, Serbia

Prof. Dr. Radoje Vujadinović, Faculty of Mechanical Engineering, University of Montenegro

Prof. Dr. Željko Đurišić, Faculty of Electrical Engineering, University of Belgrade, Serbia

Prof. Dr. Jovan Mikulović, Faculty of Electrical Engineering, University of Belgrade, Serbia

Prof. Dr. Željko Despotović, Faculty of Electrical Engineering, University of Belgrade, Serbia

Prof. Dr. Petar Đukić, Faculty of Technology and Metallurgy, University of Belgrade, Serbia

Prof. Dr. Kledi Xhaxhiu, Faculty of Natural Sciences, University of Tirana, Albania

Dr. Iñigo Capellán-Pérez, Research Group on Energy, Economy and System Dynamics - University of Valladolid, Spain

**Dr Nataša Markovska,** Macedonian Academy of Sciences and Arts, Skopje (MANU), R. North Macedonia **Dr. Čedomir Zeljković,** Faculty of Electrical Engineering, University of Banja Luka, Bosnia and Herzegovina **Angel Nikolaev,** Black Sea Energy Research Center (BSERC), Bulgaria

#### Tuesday, September 12, 2023

15:00	REGISTRATION	OF PARTICIPANTS

18:00 Welcome Cocktail

#### Wednesday, September 13, 2023

- 09:00 REGISTRATION OF PARTICIPANTS
- 10:00 10:30 Opening ceremony

Directors of public utilities EPS, ERS, EPCG, ESM

Chairman: Nikola Rajaković

10:30 – 11:00 Presentation of the Platinum Sponsor

11:00 – 12:30 Panel 1 – Development of modern energy infrastructure in the context of energy storage needs / Hall 1

#### Chairman: Nikola Rajaković

**Summary:** Different storage technologies in light of the increase in the share of renewable sources. Technical - technological topics in the context of the current energy transition and the optimal energy mix of renewable and conventional energy sources. Integrated planning of investments in the network and production with accompanying topics: availability of natural resources, application of artificial intelligence, education... CASE STUDIES with regional examples (simultaneous translation).

#### 12:30 – 14:00 Lunch Break

# 14:00 – 15:30 Panel 2 – Connecting key energy sectors - perceived problems and new solutions for the energy transition / Hall 1

#### Chairman: Ilija Batas Bjelić

**Summary:** Connecting the power sector with the heating and cooling sector in the context of modern technologies of heat pumps and heat storage and global energy disturbances. In this sense, pointing out the importance of long-term supply contracts, the limitation of fossil fuels, the obsolescence of infrastructure, the growth of retail prices of energy sources, building materials and works, the certification of installers, the impact of inflation and the issue of energy poverty. CASE STUDIES with regional examples (simultaneous translation).

#### 15:30 – 16:00 *Coffee Break*

16:00 – 17:30 Parallel sessions

Session 1 - RENEWABLE ENERGY SOURCES (SUN, WIND, WATER, BIOMASS, BIOGAS, GEOTHERMAL ENERGY...) / Hall 1

Session 2 - CONVENTIONAL ENERGY AND ITS DEALING WITH THE ENERGY TRANSITION; MULTISECTORAL TASKS IN THE FIELD OF ENVIRONMENTAL IMPROVEMENT ON THE ROAD OF THE REPUBLIC OF SERBIA ACCORDING TO THE EU / Hall 2

#### Thursday, September 14, 2023

- 08:30 REGISTRATION OF PARTICIPANTS
- 09:00 10:30 Parallel sessions

Session 3 - CONNECTING THE ELECTRIC POWER SECTOR WITH THE HEATING, TRANSPORT AND INDUSTRY SECTORS / Hall 1  $\,$ 

Session 4 - ELECTRIC POWER NETWORKS AND MARKETS IN ENERGY / Hall 2

10:30 – 11-00 *Coffee Break* 

#### 11:00 – 12:30 Panel 3 – **- The role of hydrogen in the energy transition / Hall 1** Chairman: Milun Babić

**Summary:** Contemporary practice and development trends in the field of carbon-free energy, transport and industry have brought to the fore the need for the production and use of hydrogen (high energy value, availability in nature, clean combustion, feasible transportation by gas pipelines and suitability for "storage" of electricity. Serbia has signed a number of agreements that keep pace with the hydrogen transition, which has gained great momentum in Europe and the world. That is why topics related to the production and use of hydrogen in Serbia and other countries of the region are of particular importance.

12:30 – 14:00 Lunch

# 14:00 – 15:30 Panel 4 – Energy and industry in the region in light of the introduction of taxes on carbon dioxide emissions / Hall 1

#### Chairman: Dušan Gordić

Summary: The current issues of the introduction of taxes on carbon dioxide emissions are viewed from different aspects: the aspect of investors, the aspect of power companies where coal is the dominant primary energy source, the aspect of industry, the aspect of regulation and certainly from the aspect of the banking sector. The panel will also analyze the aspect of the historical right to emissions and a just transition.

15:30 – 16:00 *Coffee Break* 

16:00 – 17:30 Parallel sessions

Session 5 - ENERGY EFFICIENCY (HOUSEHOLDS, UTILITY SECTOR, INDUSTRY, CONSTRUCTION...) / Hall 1

Session 6 - NEW TECHNOLOGIES IN ENERGY / Hall 2

20:00 – 01:00 Gala dinner – Hotel Mona

#### Friday, September 15, 2023

09:00 - 10:30	Parallel sessions		
	Session 7 - MULTISECTORAL TASKS IN THE FIELD OF ENVIRONMENTAL IMPROVEMENT ON THE ROAD OF THE REPUBLIC OF SERBIA TO THE EU / Hall 1		
	Session 8 - ECONOMIC AND REGULATORY AND DEVELOPMENT ISSUES OF THE ENERGY SECTOR / Hall 2		
10:30 - 11-00	Coffee break		
11:00 - 12:30	FINAL SESSION / Hall 1		

Chairman: Milun Babić

#### PAPERS SCHEDULE

#### Wednesday, September 13, 2023

#### 16:00 - 17:30

- 1. RENEWABLE ENERGY SOURCES (SUN, WIND, WATER, BIOMASS, BIOGAS, GEOTHERMAL ENERGY...) / Hall 1 Chairman: Iva Batić
  - 1.1. #206 SYSTEMS FOR MANAGEMENT OF DISTRIBUTED ENERGY RESOURCES DERMS

Luka Strezoski

1.2. #219 ASSESSMENT OF THE IMPACT OF CONNECTING THE WIND POWER PLANT "VETROZELANA" TO THE TRANSMISSION NETWORK THROUGH HARMONIC ANALYSIS

Nada Vrcelj, Brankica Popović Zdravković, Jovan Vukovljak

1.3. #222 CONNECTION METHOD, COMMISSIONING AND MONITORING OF THE 4X150 KW BIOGAS POWER PLANT

Dino Bošnjaković, Hidajet Salkić, Jasmin Saletović

1.4. #229 SIMULATION OF PHOTOVOLTAIC PANELS ELECTRICITY GENERATION USING SOLAR TRACKING SYSTEMS

Andreja Stefanović

1.5. #243 SELLECTION OF APPROPRIATE FORECAST ERROR FOR ADEQUATE ASSESSMENT OF OPERATIONAL PLANNING ACCURACY OF THE PRODUCTION FROM DIFFERENT TYPES OF RENEWABLE ENERGY SOURCES

Miroslav Divčić, Mladen Apostolović, Bratislav Džombić

1.6. #250 ANALYSIS OF THE PHOTOVOLTAIC SYSTEMS CONSTRUCTION CAPACITIES ON THE RESIDENTIAL ROOFTOPS IN SERBIA

Iva Batić

1.7. #268 STATISTCAL ANALYSIS OF THE ASSESSMENT OF WIND POTENTIAL IN THE TERRITORY OF THE CITY OF KRAGUJEVAC

Aleksandar Nešović, Nikola Komatina

2. CONVENTIONAL ENERGY AND ITS DEALING WITH THE ENERGY TRANSITION; MULTISECTORAL TASKS IN THE FIELD OF ENVIRONMENTAL IMPROVEMENT ON THE ROAD OF THE REPUBLIC OF SERBIA ACCORDING TO THE EU / Hall 2

Chairman: Aleksandar Madžarević

#### 2.1. #215 THE IMPACT OF NEW ENERGY TECHNOLOGIES ON THE LEVEL OF ENERGY JUSTICE

Miroslav Parović

2.2. #228 SUSTAINABLE ENERGY SECTOR USING WASTE WOODY BIOMASS AND MISCANTHUS IN THE ENERGY TRANSITION

Nihad Hodžić, Kenan Kadić, Anes Kazagić

2.3. #246 THE IMPACT OF COAL QUALITY ON THE GENERATOR'S ACHIEVED POWER OF THE 300 MW THERMAL POWER PLANT

Nikola Miljković, Aca Jovanović, Nikola Jovanović

2.4. #253 PRODUCTION OF ELECTRICITY FROM COAL-FIRED POWER PLANTS AND ACCOMPANYING CO2 EMISSIONS: COMPARISON OF EU-27 AND SERBIA

Aleksandar Madžarević, Predrag Jovančić, Stevan Đenadić, Filip Miletić, Miroslav Crnogorac

2.5. #257 ENERGY-ECONOMIC ANALYSIS IN THE PROCEDURE OF SELECTING THE CAPACITY FOR THE PRODUCTION OF ELECTRICAL ENERGY

Slobodan Milić

2.6. #260 CONCEPTUAL SOLUTION OF THE GREEN PV - HYDROGEN COMPLEX ON THE EXISTING INFRASTRUCTURE OF THE THERMAL POWER PLANT MORAVA

Mina Dimić, Željko Đurišić, Perica Stančević

2.7. #269 ANALYSIS OF ENERGY EFFICIENCY AND SUSTAINABILITY INDICATORS OF THE PETROLEUM INDUSTRY IN SERBIA

Andrija Avramović (Studentski rad)

2.8. #271 ANALYSIS OF THE INFLUENCE OF DISTRIBUTED PRODUCTION IN THE TRANSMISSION SYSTEM Miljan Zikić, Vladan Ristić

#### Thursday, September 14, 2023

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09:00 - 10:30
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- 3. CONNECTING THE ELECTRIC POWER SECTOR WITH THE HEATING, TRANSPORT AND INDUSTRY SECTORS / Hall 1 Chairman: Tomislav Rajić
  - 3.1. #209 A PROPOSAL TO CONNECT LARGE DATA CENTERS AND ASSOCIATED POWER PLANTS IN THE POWER SYSTEM

Ivan Vujović, Zoran Stojanović, Željko Đurišić (Studentski rad)

3.2. #210 SIMULATION OF THE BIOGAS QUANTITY ASSESSMENT PROCESS THAT CAN BE OBTAINED IN DIGESTERS OF APPROPRIATE INPUT RAW MATERIALS

Srećko Ćurčić

3.3. #214 SIMULATION OF THE PROCESS FOR THE ASSESSMENT OF ENERGY AND ECONOMIC PROFIT FROM WASTE TIMBER AND AGRICULTURAL BIOMASS

Srećko Ćurčić

- 3.4. #221 BIDIRECTIONAL ELECTRIC VEHICLES AS A SIGNIFICANT RESOURCE FOR EES BALANCE Saša Zdravković, Marko Zarić, Milan Blažić
- 3.5. #227 INDUSTRIAL WASTE HEAT POTENTIAL FOR MEETING HEAT DEMAND IN THE REPUBLIC OF SERBIA Dejan Ivezić, Marija Živković
- 3.6. #234 KINEMATIC AND DYNAMIC ANALYSIS OF THE WORKING MECHANISM OF BUCKET EXCAVATOR WITH TRIPOWER SYSTEM

Vujadin Aleksić, Srđan Bulatović, Bojana Zečević, Ana Maksimović, Ljubica Milović

3.7. #236 DEVELOPMENT OF A SOFTWARE SYSTEM FOR ASSESSING THE POTENTIAL FOR INSTALLATION OF ROOFTOP SOLAR SYSTEMS IN RURAL AREAS

Filip Kulić, Vladimir Bugarski, Aleksandar Selakov

3.8. #259 COUPLING A SIMULATION PLANNING TOOL WITH THE POWER FLOW CALCULATION TOOL: CASE STUDY OF THE REPUBLIC OF SERBIA

Nikola Rajaković, Bojan Ivanović, Ilija Batas Bjelić, Tomislav Rajić

- 4. ELECTRIC POWER NETWORKS AND MARKETS IN ENERGY / Hall 2 Chairman: Darko Šošić
  - 4.1. #205 THE ROLE OF COMMUNITIES OF RENEWABLE ENERGY SOURCES IN THE ENERGY TRANSITION Miloš Kuzman, Dunja Grujić
  - 4.2. #211 NETWORK RECONFIGURATION AND CAPACITOR SWITCHING IN THE PRESENCE OF DISTRIBUTED RESOURCES IN LARGE SCALE DISTRIBUTION SYSTEM

Branko Stojanović, Tomislav Rajić, Darko Šošić

4.3. #212 INFLUENCE OF SOLAR PANELS ON LOSSES IN THE LOW-VOLTAGE NETWORK Siniša Spremić, Aleksandar Antonić

#### 4.4. #239 DETECTION AND ELIMINATION OF THE CAUSES OF UNSTABLE SYSTEM OPERATION Bojan Ivanović

- 4.5. #244 EUROPEAN RESOURCE ADEQUACY ASSESSMENT ERAA 2022 Vladan Ristić, Nebojša Vučinić
- 4.6. #266 NEW MODEL OF CALCULATING ELECTRICITY OF PROSUMERS Dunja Grujić, Miloš Kuzman, Željko Đurišić
- 4.7. #267 IMPROVING THE WAY OF CALCULATING ACCESS TO THE ELECTRICITY DISTRIBUTION SYSTEM Dunja Grujić, Miloš Kuzman, Željko Đurišić
- 4.8. #272 APPLICATION OF BREADTH-FIRST SEARCH AND GEOREFERENCING FOR OPTIMIZING OVERHEAD LINE ROUTE Vladan Ristić, Darko Šošić, Dragana Ristić

#### 16:00 - 17:30

- 5. ENERGY EFFICIENCY (HOUSEHOLDS, UTILITY SECTOR, INDUSTRY, CONSTRUCTION...) / Hall 1 Chairman: Vladimir Vukašinović
  - 5.1. #208 A SMART DOG IN THE FUNCTION OF MONITORING TEMPERATURE LOSSES IN THE ENVIRONMENT

Aleksandar Peulić

5.2. #232 REALIZATION OF THE CONSUMPTION MONITORING AND POWER QUALITY CONTROL SYSTEMS IN THE COMPANY GRUNER SERBIAN DOO

Bojan Simonović, Miodrag Vuković, Željko V. Despotović

5.3. #238 THE POSSIBILITY OF INCREASING THE EFFICIENCY OF SHIP PROPULSION WITH OPEN CYCLE GAS TURBINES

Draško Kovač, Sead Cvrk, Miroslav Vukičević

- 5.4. #245 ENERGY EFFICIENCY OF HOUSEHOLDS WITH A HEAT PUMP AND A SOLAR POWER PLANT Zoran Simendić, Goran Švenda, Tatjana Latas, Dalibor Mraović
- 5.5. #247 TECHNO-ECONOMIC ANALYSIS OF THE INSTALLATION OF A HEAT PUMP FOR HEATING LIVING SPACE AS A REPLACEMENT FOR AN ELECTRIC BOILER

Mladen Josijević, Dušan Gordić, Vladimir Vukašinović, Jelena Nikolić, Dubravka Živković

- 5.6. #249 ELECTRICITY CONSUMPTION AND CARBON FOOTPRINT OF WASHING MACHINES Filip Nastić, Dušan Gordić, Vladimir Vukašinović, Davor Končalović, Jelena Nikolić, Nebojša Jurišević
- 5.7. #252 ANALYSIS OF THE APPLICATION OF A GEOTHERMAL HEAT PUMP FOR HEATING AND COOLING OF A BUILDING

Aleksa Savić, Vanja Šušteršič, Mladen Josijević, Aleksandar Nešović, Nebojša Jurišević, Vladimir Vukašinović

5.8. #265 ENERGY CONCEPT OF YAODONG UNDERGROUND BUILDINGS IN THE XXI CENTURY ON THE TERRITORY OF SERBIA

Aleksandar Nešović, Danijela Nikolić, Nebojša Lukić

## 6. NEW TECHNOLOGIES IN ENERGY / Hall 2

Chairman: Željko Despotović

6.1. #207 NEURAL NETWORKS MODELING FOR THERMAL PLANTS PRODUCTION PLANNING

Sonja Knežević, Mileta Žarković

6.2. #218 IMPROVEMENT OF THE MIXED CIRCUIT PROTECTION SYSTEMS USING NON-CONVENTIONAL MEASURING QUIPMENT

Milena Lekić, Milorad Kuč, Strahinja Vuković, Blagoje Gojković, Željko Đurišić, Zoran Stojanović

6.3. #220 CONTEMPORARY TENDENCIES OF THE ENERGY TRANSITION - TECHNOLOGIES AND MATERIALS FOR ENERGY STORAGE

Negovan Ivanković, Vanja Gujaničić, Miloš Nikolić, Stevan Stupar

6.4. #223 REALIZATION OF THE PLANT FOR DETECTION AND SEPARATION OF METAL PARTS ON THE CONVEYOR BELT FOR THE DELIVERY OF COAL TO TE "KOSTOLAC"

Željko V. Despotović, Dejan Đokić, Boris Ilić, Dragan Milisavljević

6.5. #224 ANALYSIS OF THE MAGNETIC FIELD AND ATTRACTIVE FORCE OF THE ELECTROMAGNETIC SEPARATOR USING THE FINITE ELEMENT METHOD

Željko V. Despotović, Đorđe Lekić

6.6. #225 REMOTE MONITORING AND CONTROL OF A HYBRID POWER PLANT FOR IRRIGATION OF CROPS ON AN AGRICULTURAL PLOT IN THE TOWN OF BELEGIS

Željko V. Despotović, Ilija Stevanović, Jovan Šumarac

6.7. #231 SOLUTION PROPOSAL FOR A TWO-AXIS MOBILE SOLAR TRACKER WITH ENERGY ACCUMULATION POSSIBILITY

Marko Djurović, Željko V. Despotović

6.8. #275 DEGASIFICATION OF WATER USING MEMBRANE TECHNOLOGY - PROJECT EVALUATION AND EXPERIENCES AFTER 12 YEARS OF USAGE

Aleksandar Stojanović

#### Friday, September 15, 2023

#### 09:00 - 10:30

7. MULTISECTORAL TASKS IN THE FIELD OF ENVIRONMENTAL IMPROVEMENT ON THE ROAD OF THE REPUBLIC OF SERBIA TO THE EU / Hall 1

Chairman: Jelena Nikolić

7.1. #216 ANALYSIS OF THE IMPACT OF NOISE DURING THE CONSTRUCTION AND EXPLOITATION PHASE OF THE WIND PARK IN KOSTOLAC

Nikola Stankovic

7.2. #233 PLANNING THE ENERGY FUTURE OF THE CITY: SWOT ANALYSIS -CASE STUDY OF THE CITY OF KRAGUJEVAC

Jelena Nikolić, Dušan Gordić, Vladimir Vukašinović, Mladen Josijević, Dubravka Živković

7.3. #241 INTEGRATIVE GHG ASSESSMENT IN OIL AND GAS INDUSTRY

Aleksandar Mirkovic, Marija Živković, Stevan Đenadić, Darja Lubarda, Chinedu Anyanwu

7.4. #242 DECARBONIZATION OF THE ENERGY SECTOR OF REPUBLIKA SRPSKA (BIH), SITUATION AND PERSPECTIVES

Maja Mrkic-Bosancic, Veljko Vuković

7.5. #248 CYBER PHYSICAL SECURITY OF DISTRIBUTED ENERGY RESOURCES

Luka Strezoski, Zorana Babic, Dejan Milojičić

7.6. #258 PROPOSED MODEL FOR PREDICTING THE CONCENTRATION OF SUSPENDED (PM2.5) PARTICLES IN THE AIR

Filip Nastić (Studentski rad)

7.7. #270 EMPOWERING ENERGY TRANSITION IN SERBIAN HOUSEHOLD SECTOR: AN INTEGRATIVE APPROACH

Boban Pavlović

7.8. #274 EXPERIENCES IN THE CONSTRUCTION OF SOLAR PHOTOVOLTAIC POWER PLANTS MOUNTED AT FUEL SUPPLY STATIONS AS A PROSUMER

Rastislav Kragić

- 8. ECONOMIC AND REGULATORY AND DEVELOPMENT ISSUES OF THE ENERGY SECTOR / Hall 2 Chairman: Sonja Josipović
  - 8.1. #213 GREEN ENERGY AS A BASIS OF THE GREEN ECONOMY

Gordana Kokeza, Sonja Josipović

- 8.2. #217 POTENTIALS OF USING DIFFERENT SUBSTRATES IN THE PROCESS OF BIOGAS PRODUCTION Nikola Stankovic, Srećko Ćurčić
- 8.3. #226 LACK OF REGULATION FOR PRIVILEGED PRODUCERS IN CASE OF ENTERING THE MARKET Milica Glomazić, Ana Žarković
- 8.4. #237 APPLICATION OF MULTI-CRITERIA ANALYSIS FOR THE OPTIMIZATION HOTEL ENERGY SYSTEMS Draško Kovač, Đorđe Nedeljkov, Martin Ćalasan
- 8.5. #261 FINANCIAL IMPACT OF THE EU CARBON BORDER ADJUSTMENT MECHANISM ON ENERGY-INTENSIVE COMPANIES IN SERBIA

Maša Njegovan, Željko Marković

8.6. #264 CHALLENGES OF DIVERSIFYING GAS SUPPLY IN THE REPUBLIC OF SERBIA IN THE CONDITIONS OF THE ENERGY CRISIS

Milan Veselinović, Snežana Radukić, Žarko Popović

8.7. #273 CONFUSION IN THE ENERGY TRANSITION - THE WORLD AND SERBIA TODAY

Petar Đukić, Slaviša Đukanović

#### **NEW DEADLINES**

- to authors for delivery of conference papers August 18
- to students for delivery of conference papers August 31
- for payment of the registration fee on August 31

#### GENERAL INFORMATION FOR AUTHORS OF PAPERS AND TECHNICAL INSTRUCTIONS FOR WORK EXHIBITION

For the presentation of the work, the authors will have at their disposal a projector with accompanying equipment, which technically supports the projection of presentations made in MS PowerPoint format, according to the provided template of the ENERGETIKA 2022 conference. - the technical person or the chairman of the session. The duration of the oral presentation is up to **12 minutes**.

#### REGISTRATION FEE AND ACCOMMODATION - HOTEL MONA

Categories WITH accommodation		Price (EUR)		
		Room type	Until May 31,2023	After May 31, 2023
А	AUTHORS	1/1 standard	350,00	388,00
		1/2 standard	275,00	313,00
		1/1 comfort	377,00	415,00
		1/2 comfort	293,00	331,00
		1/1 superior	392,00	430,00
		1/2 superior	302,00	340,00
		1/1 apt	407,00	445,00
		1/2 apt	250,00	352,00
	OTHER PARTICIPANTS	1/1 standard	374,00	388,00
		1/2 standard	299,00	313,00
		1/1 comfort	400,00	415,00
В		1/2 comfort	316,00	331,00
		1/1 superior	415,00	430,00
		1/2 superior	326,00	340,00
		1/1 apt	430,00	445,00
		1/2 apt	338,00	352,00

#### **REGISTRATION FEE**

Categories WITHOUT accommodation		Price (EUR)		
		Until May 31,2023	After May 31, 2023	
С	AUTHORS	95,00	135,00	
D	OTHERS	120,00	135,00	
Е	STUDENT	70,00	80,00	

\* 20% VAT is not included

#### **Registration fees include:**

- accommodation based on 3 full boards (categories A and B) service starts with lunch, ends with breakfast
- attendance at all lectures (all categories)
- welcome cocktail (categories A, B, C, D and E)
- coffee breaks (categories A, B, C, D and E)
- gala dinner (categories A, B, C, D and E)
- conference material (all categories)

#### VENUE



**Zlatibor** is a mountain of exceptional beauty, with the altitude of 700-1500 m, in southwestern Serbia, located 235 km away from Belgrade and the nearest airport. It is featured by mild climate conditions, spacious glades and lush pastures intersected with mountain brooks and colored by torrential pine trees that this mountain was named after. It is at this very place that mountain air currents collide with marine air currents to improve

pulmonary and cardiac conditions, in particular those related to thyroid gland and anemia. On the outskirts of the Zlatibor central area, you can set out for an adventure – you can explore the beauty and vividness of both the nature and cultural & historical heritage. We sincerely hope you will have time to reveal the Zlatibor of your own.



**Hotel Zlatibor Mona** is surrounded by beautiful pine trees, located in the very center of Zlatibor. The hotel interior is carefully selected and designed to present the guests with a complete mountain experience during all seasons through a combination of traditional and modern elements, wooden paneling and the finest fabrics in warm tones. Hotel Zlatibor Mona offers 120 spacious and warm rooms and suites, equipped with all modern amenities necessary for a complete vacation and relaxation, including a bathroom, TV, cable TV with over 40 channels, safe, mini bar, blow dryer, telephone, and free internet connection. All accommodation units at the Zlatibor Mona Hotel are air-conditioned. In addition to the accommodation facilities, the hotel offers numerous leisure, entertainment and meal options, such as the Perun Restaurant, Vila Restaurant, Lada Bar, Little Mona playroom for children, and Inspirium - a fully equipped wellness center, which is available to all guests during their stay.

KONTAKT I INFORMACIJE / Technical organizer:



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