

**WORLD
ENERGY
COUNCIL**



27th Forum, Croatian Energy Association
Energy Day in Croatia

**DEVELOPMENT OF TECHNOLOGIES FOR ACHIEVING A UNIQUE CLIMATE
AND ENERGY POLICY**

***Croatian Energy Association held its 27th Energy Forum – Energy Day in
Croatia on November 16th, with the subject: DEVELOPMENT OF
TECHNOLOGIES FOR ACHIEVING A UNIQUE CLIMATE AND ENERGY POLICY***

The ambitious plan of decreasing CO₂ and other greenhouse gases in the European Union is largely based on future technological development of the entire generation, transmission, distribution, consumption, distributed generation and consumer generation chain. There is a little more than 30 years ahead (by 2050) of a very dynamic transition period, in which some things are expected, such as continued decrease of fossil fuel consumption, increase of generation from renewable energy sources, increase of energy efficiency and an increased technological development. Technological development will encompass smart infrastructure and loads, car and traffic industry and a change in consumer stance in that consumers will have more freedom of choices, as well as a possibility of own energy generation.

Development of new technologies should be priority number one to all member countries of the European Union, but also globally. Administration should be minimized, particularly protectionism, because it detains technology development and its competitiveness. Mechanisms for achieving a unique climate and energy policy should enable synergy without other side-effects that endanger them.

A large role in decreasing CO₂ and other greenhouse gas emissions is occupied by dynamics of technological development, price acceptability, as well as other mechanisms, especially economic mechanisms that are supposed to create conditions for achieving a unique climate and energy policy. There are some lessons that should be drawn from the previous period:

The purpose of the Forum is to open a discussion about the development of all technologies that increase energy efficiency and usage of renewable energy sources in energy generation, transmission/transport, distribution, consumption and in traffic, and decrease the usage of fossil fuels. Also, there will be a discussion about digital and communication technology that should contribute to better management of all elements of the technological chain, to the development of consumer generation,

new methods of measuring and selling energy, simpler ways of managing own needs by the consumers, etc.

Technology development, changes between energy market participants, changes in legislation and regulations occur in real time in all systems. The consequences are paid by consumers, so it is in consumer interest that the economic system is well thought out, coordinated and has clear information, both for energy investors and energy consumers, as well as equipment manufacturers. These are the most important issues at the heart of this year's Forum.

Attendees were greeted by the President of Croatian Energy Association, Goran Granić Ph.D., Tomislav Radoš Ph.D. (Croatian Chamber of Economy, Vice President for industry and energy), Vladimir Andročec Ph.D. (President of Academy of Engineering))

Goran Granić, Ph.D., President of Croatian Energy Association, reminded the participants that Croatian Energy Association began its work in the spring of 1992 and due to the understanding of World Energy Council, soon became its member. With the desire for the Forum constructiveness and success, Goran Granić, Ph. D. used this opportunity to thank the sponsors for making this Forum possible.

This manifestation was sponsored by the President of the Republic of Croatia Kolinda Grabar – Kitarović, The Ministry of Science and Education, Ministry of Environment and Energy, Croatian Academy of Engineering and Croatian Chamber of Economy.

The presentations were held as followed:

HRVATSKO ENERGETSKO DRUŠTVO
CROATIAN ENERGY ASSOCIATION

PROGRAM

27. FORUM: DAN ENERGIJE U HRVATSKOJ
27th FORUM: ENERGY DAY IN CROATIA

16. studeni 2018. / November 16, 2018.

*Muzej suvremene umjetnosti, dvorana Gorgona
Avenija Dubrovnik 17
10 000 Zagreb*

8.00 – 9.00 PRIJAVA SUDIONIKA – REGISTRATION

9.00 – 9.15 OTVARANJE FORUMA – FORUM OPENING

- **Dr.sc. Tomislav Radoš**, (Hrvatska Gospodarska Komora) Potpredsjednik za industriju i energetiku / (Croatian Chamber of Economy) Vice President for industry and energy

- **Prof.dr.sc. Vladimir Andročec**, Predsjednik Akademije tehničkih znanosti Hrvatske / President of Academy of Engineering
- **Dr.sc. Goran Granić**, Predsjednik HED-a / President of Croatian Energy Association

9.30 – 10.00 KRATKI KONCERT – SHORT CONCERT

Glasovirski duo (Ljubomir Gašparović i Iva Konjevod)

S. Rahmanjinov Barkarola
 Talijanska polka
 Valcer

J. Brahms Chansonette
 Madjarski ples u e molu
 Madjarski ples u h molu
 Romansa

**RAZVOJ TEHNOLOGIJA ZA OSTVARENJE JEDINSTVENE KLIMATSKE I
 ENERGETSKE POLITIKE**

**DEVELOPMENT OF TECHNOLOGIES FOR ACHIEVING A UNIQUE CLIMATE AND
 ENERGY POLICY**

**I. SEKCIJA: REFERATI I PREZENTACIJE /
 1st SESSION: PRESENTATIONS AND PAPERS**

10.00 – 10.20 **Goran Granić / Mario Tot**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar* : „Tehnologije u novoj strategiji energetskeg razvoja RH“ / „Technologies in the new Energy Development Strategy of the Republic of Croatia“

10.20 – 10.50 **Zuozhi Zhao**, *Siemens*: „Na putu prema novom energetskeg dobu: Trendovi i inovacije“ / „On the road to a new energy age: Trends & innovation“.

10.50 – 11.10 **Thomas Schlegl**, *Fraunhofer-Institut für Solare Energiesysteme ISE* : „Model obnovljivih izvora energije za Njemačku (ekonomski i ekološki aspekti održivog sustava opskrbe energijom za Njemačku 2050. godine)“ / „Renewable Energy Model for Germany (economical and ecological aspects for a sustainable energy supply system for Germany in 2050)“

11.10 – 11.30 **Ralf Preu**, *Fraunhofer-Institut für Solare Energiesysteme ISE*, : „Razvoj tehnologije solarnih ćelija do 2050 (stanje i budući razvoj)“ / „Technology development of solar cells by 2050 (status and future development)“

11.30 – 11.50 **Stela Nenova**, *ENTSO-E European Network of Transmission System Operators for Electricity*, : “Digital Grid: Key enabler for the energy transition / „Digital Grid: Ključan za energetska tranziciju.“

11.50 – 12.15 PAUZA ZA KAVU – COFFEE BREAK

II. SEKCIJA: REFERATI I PREZENTACIJE / 2nd SESSION: PRESENTATIONS AND PAPERS

12.15 – 12.35 **Lahorko Wagmann / Srđan Žutobradić**, *Hrvatska energetska regulatorna agencija / Croatian Energy Regulatory Agency* : „Regulatorni aspekti uvođenja naprednih mreža u RH“ / „Regulatory Aspects of Smart Grid Deployment in Croatia“

12.35 – 12.55 **Miroslav Poljak / Borko Fruhwirth**, *Končar - Elektroindustrija d.d. / Končar-Electrical Industry Inc.* : „Tranzicija elektroenergetskog sektora – prilike i izazovi razvojnog modela“ / „The transition of the electricity sector - opportunities and challenges of the development model“

12.55 – 13.15 **Robert Pašičko / Stjepan Car / Zoran Kordić**, *Geotehnički fakultet Sveučilišta u Zagrebu / Faculty of Geotechnical Engineering, Zelena energetska zadruga / Green Energy Cooperative*, : „Moguća uloga obnovljivih izvora u razvoju lokalnih zajednica“ / „Possible role of renewable energy sources in local development“

13.15 – 13.35 **Ivan Krnić**, *HEP proizvodnja d.o.o. / HEP - Production Ltd.*: „Utjecaj tehnoloških dostignuća na model poslovanja elektroenergetskog sektora“ / „Technical developments, the impact on the power sector business model“

13.35 – 14.30 PAUZA ZA RUČAK – LUNCH BREAK

III. SEKCIJA: REFERATI I PREZENTACIJE / 3rd SESSION: PRESENTATIONS AND PAPERS

14.30 – 14.50 **László Horváth / Nikola Karadža / Siniša Knežević**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar* : „Tehnologije vjetroelektrana u energetska tranziciji: jučer, danas, sutra“ / „Wind Power Technologies in Energy Transition: Yesterday, Today, Tomorrow“

14.50 – 15.20 **Danica Maljković / Ružica Budim**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar*: „Integracija velikih toplinskih pumpi u toplinarstvu, kao switch na niskotemperaturno grijanje, korištenje obnovljivih izvora energije i skladištenje energije“ / „Implementation of large scale heat pumps in district heating systems for renewable heating and energy storage“

15.20 – 15.40 **Sanja Živković / Dražen Tumara**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar* : „Nove tehnologije u geotermalnoj energiji“ / „New technologies in geothermal energy“

15.40 – 16.00 **Dinko Đurđević**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar*, : „Tehnologije zbrinjavanja otpada u sklopu kružne ekonomije“ / „Waste management technologies within circular economy package“

16.00 – 16.30 PAUZA ZA KAVU – COFFEE BREAK

**IV. SEKCIJA: REFERATI I PREZENTACIJE /
4th SESSION: PRESENTATIONS AND PAPERS**

16.30 – 16.50 **Bruno Židov**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar*, : „Utjecaj električne mobilnosti na elektroenergetski sustav u Hrvatskoj“ / „The Impact of Electric Mobility on the Electric Power System in Croatia“

16.50 – 17.10 **Marko Matosović**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar*, : „Utjecaj procesa odlučivanja kućanstava na implementaciju mjera politike energetske učinkovitosti“ / „Influence of households' decision-making process on the implementation of energy efficiency policy“

17.10 – 17.30 **Danko Vidović**, *Energetski institut Hrvoje Požar / Energy Institute Hrvoje Požar*, : „Više-energijski sustavi“ / Multi-energy systems

17.30 – 17.50 **Vladimir Potočnik**, : „MID-Morski incinerator desalinator“ / „Project MID (Marine Incinerator Desalinator)“

17:50 – 18.00 DISKUSIJA - DISCUSSION

18.00 – ZATVARANJE FORUMA – FORUM CLOSING

19.30 – 20.00 KOKTEL – COCKTAIL

20.00 – 21.00 KAZALIŠNA PREDSTAVA / THEATER PERFORMANCE – I živjele su sretno...?