

VÍZIA PRE  
ENERGETIKU 21. STOROČIA -  
ČO UKÁŽALA PRVÁ DEKÁDA

# EN • KO

## 2011

ENERGY VISIONS  
FOR  
THE 21<sup>st</sup> CENTURY -  
WHAT THE FIRST  
DECADE  
IMPLIES  
VÍZIA PRE  
ENERGETIKU  
21. STOROČIA -  
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ENERGY VISIONS FOR THE 21<sup>st</sup> CENTURY - WHAT THE FIRST DECADE IMPLIES



# EN•KO 2011

8<sup>th</sup> SLOVAK ANNUAL CONGRESS  
ON POWER AND ENERGY

held under auspices  
of Ministry of Economy  
of the Slovak Republic

June 7 – 8, 2011  
Bratislava, Bôrik Hotel



ERASMUS

## MAJOR PARTNERS



Slovakia

## PARTNERS



Ústav jaderného výzkumu Řež a.s.



## MEDIA PARTNERS



Dear colleagues, ENKO 2011 participants,

Several days ago the 8<sup>th</sup> Annual International ENKO 2011 Congress, entitled “ENERGY VISION FOR 21<sup>ST</sup> CENTURY – WHAT THE FIRST DECADE IMPLIES”, finished.

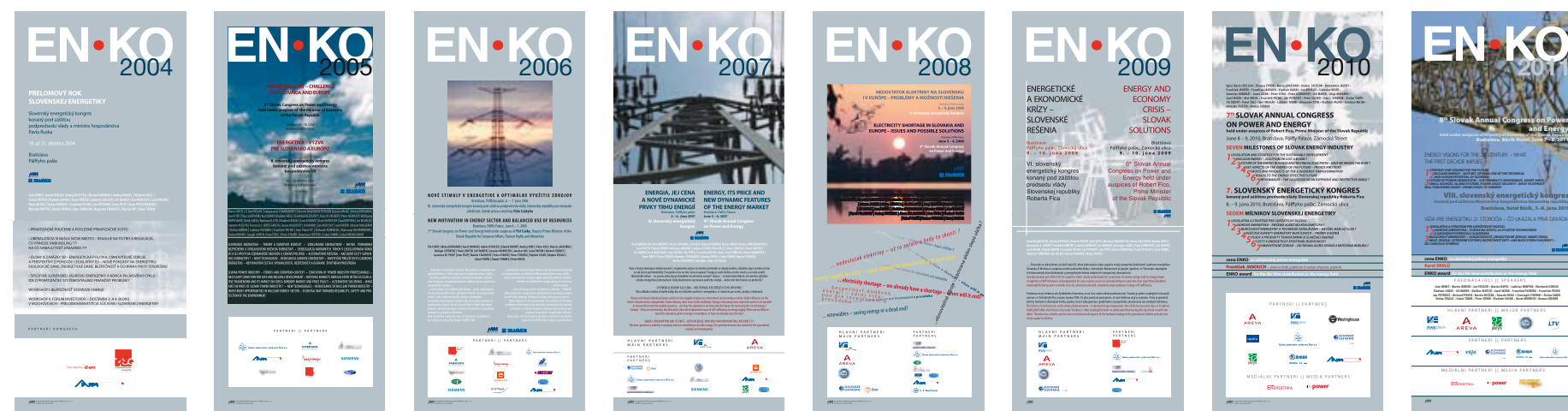
This year we put the attention, among other topics, to the development of the energy in the world and Europe aftermath the Fukushima event. The impact of this event is strong today and affects not only public, politicians, but also engineers and developers, redirecting financial flows into new technologies, more safe than before, including renewable energy. We passed through the interesting panel discussions on new energy source in Slovakia and the lessons learned from NPP Fukushima. Other interesting topics concerned of the intelligent networks / grids, electro mobility and traditionally of the very important issue – the security of energy supply.

We are convinced that our Congress supported discussion on how to develop energy sector, and to find starting points for further sustainable development.

Let us thank you for your active participation and creation of informal pleasant social atmosphere. We are looking forward to meeting you on the next 9<sup>th</sup> Annual Congress ENKO 2012 in Bratislava.

Ľuboš Tomík  
ENKO 2011 Congress Chairman

Jiří Marek  
ENKO 2011 Congress Vice Chairman

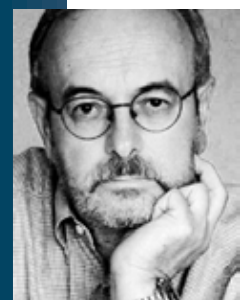


**Ľuboš TOMÍK, Jiří MAREK** congress chairman and vice-chairman – congress opening



**Ľuboš TOMÍK** Congress Chairman

Director of consulting company CESys Ltd. working in the field of energy. After graduating ČVUT, Faculty of Engineering with specialization on nuclear energy he worked in SE, a.s. During establishing of Nuclear Regulatory Authority of the Slovak Republic he worked in the field of probabilistic safety assessment. He gained experience in abroad in number of industry and energy companies. During last years he worked as manager in foreign IT companies solving the opening and deregulation of Slovak energy market. During the period of 2002 – 6 he was managing director of CENS (Centre for Nuclear Safety), international company working on the region of Central and Eastern Europe. Regarding the SE, a.s., privatization he is author and co-author of various studies performing energy market scenario modeling, i.e. Feasibility Study on NPP Mochovce 3 and 4 Completion for Ministry of Economy of the Slovak Republic.



**Jiří MAREK** Congress Vice-Chairman

He is the consultant in the field of power industry and is the Executive Head of JMM Consulting, Ltd. – a company focused on advisory services and organization of professional activities. After graduating from the Czech Technical University, Faculty of Technical and Nuclear Physics, he worked in research; he has been working in the power industry field since 1974 (until 1996 in ČEZ). For the last eighteen years, he was the advisor of the Minister of Industry and Trade, Chairman and Vice-Chairman of the Supervisory Board of ČEZ, a member of supervisory boards in several energy distribution companies, and an advisor of Deputy Ministers of Finance. In these positions, he was dealing with the reorganization of state administration in power industry, the development of state energy policy, the establishment of the State Office for Nuclear Safety and with the preparation of the privatization of Czech power industry. He is occupied by publication activities, mainly in the field of nuclear power industry and has wide experience in organizing of international and specialized professional conferences and meetings. His positions are quoted on TV, radio and in economic periodicals.

# S E S S I O N

## 1

### STRATEGY AND VISIONS FOR THE FUTURE





**Ján PETROVIČ** General Director, Department of Energy, Ministry of Economy of the Slovak Republic

#### NEWS IN ENERGY LEGISLATION IN EU AND IN SLOVAKIA – BASIS OF NEW ENERGY STRATEGIES

- strategic scenarios for energy market development in Slovakia
- promoting renewable energy and promote low-carbon sources, eg. nuclear
- policies and program for renewable energy and for nuclear
- instruments to support RES
- energy efficiency & impact of EU legislation into national legislation
- research and development, support programs direction, forming
- liberalisation of the gas and electricity market
- infrastructure development, smart grids, electric mobility
- energy security, what it means – specific actions

After graduating the Technical University of Košice, Faculty of Mining, he started his professional career in the mining company Baňa Dolina, a.s., in Veľký Krtíš. Since 1995 he has been working at the Ministry of Economy of the Slovak Republic in several positions; during this period he was a member of the Board of company Želba, a.s., Spišská Nová Ves and member of Supervisory Boards of companies Východoslovenské energetické závody, š.p., Košice, Transpetrol, a.s., Bratislava and Zvolenská teplárenská, a.s., Zvolen. In 2004 he became the director of Energy Policy Section and since November 2007 he is undertaking the function of Department Energy General Director. In this position Mr. Petrovič is responsible for the creation of the state energy and raw materials policy, energy and mining legislation, international relations (EC, EU, IEA, ECT, CEI). He is further responsible for the state administration performance designated by law as power industry (including nuclear), renewables, energy efficiency, gas industry, heat power sector, oil industry (including biofuel), and mining and treatment of ore and non-ore mineral raw materials and fuel.



**Richard PIEGER** Coordinator, section Corporate Development, VSE a.s., Košice

#### ELECTROMOBILITY DEVELOPMENT IN SLOVAKIA

e-mobility as an alternative concept of transportation

Richard Pieger after graduating from Technical University Košice, Faculty of Economics, specialization – finance, banking and investments (2005), worked in Východoslovenská energetika a.s. (VSE) as assistant of CEO. From 2006 to 2009 he worked as a specialist for corporate development. During the study he completed several professional internships abroad (including – Bergische Universität Wuppertal, Germany, as participant of Erasmus/Socrates Program). From 2002 to 2005 he was member of the Board of European Students of Technology (BEST). In his present position – coordinator for corporate development – he is responsible for management of corporate and business development functions, including development of projects based on renewables, e-mobility and corporate strategy.





**František PAZDERA** Deputy Director for R&D, Division of Power Generation, ČEZ, Inc, Prague

#### VISION OF CZECH ENERGY SECTOR IN THE WORLD AND EUROPEAN CONTEXT

- world and Europe energy development • TPUE – Strategic Research Agenda for ČR • long term smart energy vision for ČR with new technologies
- supply of electricity-heat-energy for transport and their distribution • beginning of global market in energy sector • SNETP

He was graduated from the Faculty of Mechanical Engineering, Technical University in Plzeň, majoring in Nuclear power plant design in 1972. He joined the Nuclear Research Institute, Řež in 1972, and worked on the optimization of Fast Breeder Reactors, computer modeling of LWR fuel rod behavior and many other projects. In 1985, he received his PhD from the Faculty of Nuclear and Physical Engineering, Technical University in Prague. Since 1983, he coordinated Project “LWR Core Safety”. Since 1990, he was Director of the Nuclear Power and Safety Division of the Nuclear Research Institute, Řež, and from 1993 until April 2008, CEO and Chairman of the Board of Nuclear Research Institute Řež a.s. Now, he is member of its Supervisory Board. Results of his technical and scientific activities were published in many reports, conferences and journals. Under his leadership, the Nuclear Research Institute Řež a.s. has become an important research company (1 000 employers and 1 600 MCZK turnover), performing research, services and architect engineering mainly in the field of nuclear and fossil energy and special production for healthcare and other branches. He participated also on several IAEA studies. In 2003 and 2008, he was EC Committee member for Five-Year Assessment of the EC Joint Research Centre. From 2002 until 2006, he was member of Advisory Group on Energy for FP 6, EC, DG Research. Currently, he is member of the following bodies: SG SET Plan EU, SAGNE (since May 2010) an advisory group of DG IAEA etc. Since September 2010, he is Chairman of Sustainable Nuclear Energy Technology Platform Governing Board.



**Takashi SHOJI** Programme Director, World Association of Nuclear Operators, London Office

#### FUKUSHIMA NPP - CURRENT STATE AND LESSONS LEARNED

- what happened in Fukushima Daiichi Nuclear Power Station • overview of the Fukushima Daiichi accident including WANO's response • discussion of some facts related to this accident

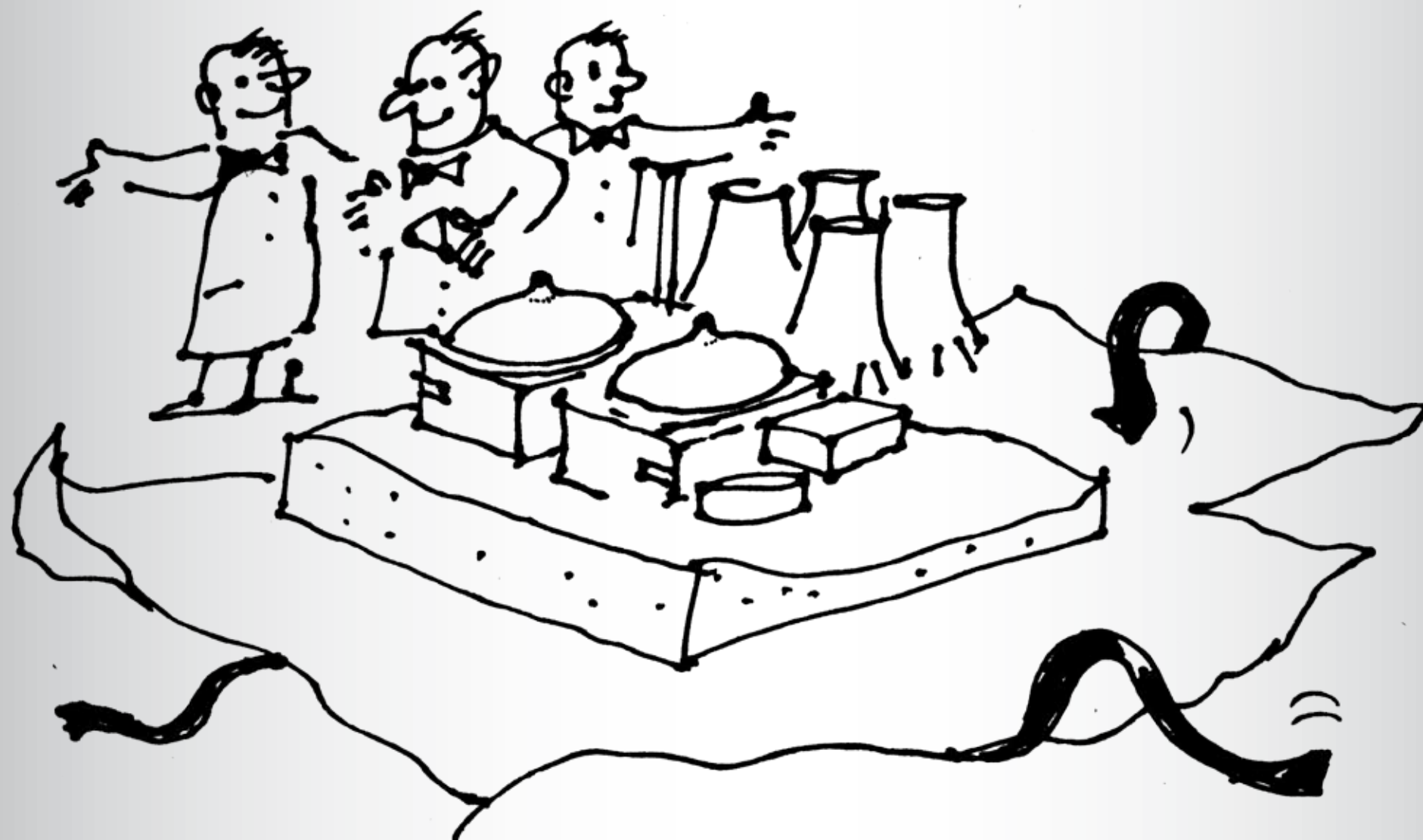
Takashi Shoji graduated from Waseda University in mechanical engineering (B.Sc. – 1974, M.Sc. – 1976). To further perfect his knowledge, he participated in the General Nuclear Physics, a certificated program from Japan Atomic Energy Research Institute Tokai Laboratory in September 1979. He started to work at Chubu Electric Power Company Inc. in April 1976, and he joined GPU Nuclear Corp., Penn., USA as a Senior Mechanical Engineer working on TMI Unit 2 Recovery Program in April 1984. In the years that followed, Mr. Shoji worked in different posts on many programs in collaboration with various departments, including Assistant Manager of Plant Engineering & Construction Section in the Nuclear Power Development & Construction Department (1986), Manager of Nuclear Power Operations & Department (1994), operation expert on IAEA OSART to Grand Gulf Nuclear Station (1994), Deputy Site Director of Hamaoka NPP (1997), General Manager of Operation & Maintenance (2000) and of Plant Life Management (2002) in Nuclear Power Operation Department, and Deputy Site Director of Hamoka NPP Construction Office (2003). He participated in WANO Peer Review to Fukushima Daiichi NPP in October 2003. In January 2005, he joined WANO Tokyo Centre as Deputy Director before he worked as Director there three months later. T. Shoji is a member of both the Atomic Energy Society of Japan and the Thermal & Nuclear Power Society. In March 2001, he won the Technical Progress Award from the Atomic Energy Society of Japan titled Development of Residual Stress Improvement Technology Using Laser and Application to Reactor Core Component with Y. Sato & Y. Hamamoto of Toshiba Corp.



# S E S S I O N

## 2

NUCLEAR ENERGY – SAFE BET,  
OPTIMAL USE  
OF THE TECHNICAL AND HUMAN  
POTENTIAL OF SLOVAKIA



## NEW NUCLEAR POWER PLANT IN SLOVAKIA – WHAT’S NEXT?

Facilitated panel discussion with following experts:



**Michal KAČENA** Business Development Director for the Czech Republic, AREVA, Praha

Michal Kačena represents the AREVA Company as the Business Development Director for the Czech Republic. His professional career started in the Nuclear Information Institute. Later he focused mainly on fields of marketing, corporate affairs and HR in various managerial positions in companies like CEZ, Philip Morris and SABMiller – Plzensky Prazdroj, where he worked as the Executive Board Member. He also was or still is actively involved in Boards of several professional / business associations like the Czech Advertising Council, Brewers of Europe, the Czech PR Association and others. He has an university degree in Nuclear Engineering (Czech Technical University), a Diploma of Journalism (Charles University) and post graduate qualifications in management (MBA) from the Sheffield Hallam University.



**Jan JÍLEK** Temelin NPP 3&4 Completion Project Chief Engineer, Škoda JS Inc., Pilsen

Jan Jílek graduated from the West-Bohemian University, Faculty of Mechanical Engineering (1997). He is a Member of the Czech Chamber Chartered Engineers and Technicians Engaged in Construction. His professional carrier is connected with Škoda JS Inc., and nuclear power particularly. He worked as plant designer and chief plant designer on the upgrading and commissioning of Mochovce NPP, commissioning and start-up of Temelín NPP, I&C Modernization of Safety Systems of Dukovany NPP, I&C Modernization of Safety Systems of Bohunice NPP, modernization of diagnostics of Mensator NPP (Armenia), and modernization of I&C system for turbine of Dukovany NPP. Currently he works as Chief Engineer of Bid for Completion of Temelín NPP 34 - design MIR 1200.



**Vladimír VACHO** Director of Project Finance & Infrastructure Department, Dexia Bank Slovensko, Bratislava

Vladimír Vacho has graduated the Slovak Technical University in Bratislava with specialization in power industry. In his professional career he has been dealing with economy of energy sector. He has been working for eleven years in the Dexia Bank and is responsible for preparation and financing of energy sector projects. He is the director of department dealing with implementation of a number of pilot projects in the field of renewables (biomass and small water plants), for which was the Dexia Bank awarded by the Financial Times and IFC as the “Bank of sustainable development” for 2007. In the bank with the team of experts he has developed the commercial financing of renewable sources projects, as well financing of the energy saving project, mainly for municipal sector. He actively cooperates on the creation / comments of the legislation documents to prepare standard legislation framework for the project financing in energy sector.



**Peter UHRÍK** General Director for Nuclear Safety, Nuclear Regulatory Authority of the Slovak Republic

Peter Uhrík started his nuclear career during studies on Slovak Technical University where he was oriented toward nuclear power. After passing university in 1983 he started to work at Slovenske Elektrarne NPP Bohunice as control room operator. He worked at various positions in the control room and also as a plant shift supervisor. From this position he became plant outage manager. From 1999 he has been working at Nuclear Regulatory Authority of the Slovak Republic, at first in position Head of Operation Safety Department and from 2005 as General Director of Division of Nuclear Safety. He is a national representative in Nuclear Safety Standard Committee – IAEA, Working Party of Nuclear Safety – EU, Working Group for Reactor Harmonisation – WENRA. He also participated on IAEA OSART and expert missions in France, Bulgaria, Lithuania and Pakistan.



**Karen WENRICH** independent consultant – geologist/geochemist, Golden, USA

#### STRATEGIC VISION FOR ENERGY FUTURE – PARTICIPATION ON THE FRONT END OF NUCLEAR FUEL CYCLE

The uranium industry has made a dramatic turnaround since 2002 – from then till 2008 worldwide uranium production increased 18%. However, production still only met 74% of worldwide nuclear reactor requirements in 2008. The uranium industry has undergone a significant evolution in the level of environmental understanding and management practices over the past 30 years -- the uranium industry has since learned to embrace the philosophy that it is more effective to prevent pollution than to clean it up. Many countries worldwide have an opportunity for energy independence if they follow in France's footsteps and embrace nuclear power and uranium mining.

After receiving her Ph.D. in geology/volcanology from The Pennsylvania State University she worked for the U.S. Geological Survey for 22 years working on mining related and environmental projects specializing in uranium. From 2002–5 she worked as a senior uranium geologist for the International Atomic Energy Agency (IAEA) in Vienna in the peaceful uses of atomic energy. While at the IAEA she was a co-recipient of the 2005 Nobel Peace Prize. Since 2005 she has been consulting for the minerals and environmental industries. She is the author of over 160 published papers.



**Dalibor MATĚJŮ** Executive Head, VÚJE ČR Ltd., Dukovany

#### NEW ENERGY VISIONS AND THE HUMAN RESOURCES

- things do not run without creative engineers • need for flexible qualification of human resources • advantages of the Slovak topical potential

Dalibor Matějů graduated from the Faculty of the Electrical Engineering, Brno University of Technology. Further he completed post-graduate studies in nuclear power plants operating at the Faculty of Mechanical Engineering of Brno University of Technology, and specialized training for the reactor operator / shift engineer of the nuclear power plant. He started his carrier as an operative electrician in the combined heat and power plant Brno. Then he worked as a chief technologist at NPP Dukovany and held various senior managing positions in ČEZ, including a Member of the Board of Directors. In the year 1996 he left to private practice as a senior adviser. He is especially focused on energy industry processes improvement. Among others he is working as an OPPI advisor for the CR MIT (Eco-energy Program). He works as Executive Head for VUJE CR Ltd., from July 2010, as well.





**Christoph STIEPANI** Director, Chemistry Services, AREVA NP GmbH, Erlangen

AREVA's DECONTAMINATION CONCEPT FOR DECOMMISSIONING (DCD) BASED ON MORE THAN 30 YEARS EXPERIENCE

- decontamination prior to decommissioning and dismantling is imperative
- the most internationally accepted approach for decontamination prior to decommissioning projects is the Full System Decontamination (FSD)
- AREVA NP has developed a fully comprehensive approach for decontamination based on the CORD® (Chemical Oxidation Reduction Decontamination)
- presentation of highlights of previous FSDs performed prior to decommissioning using the CORD / AMDA technology

Christoph Stiepani was graduated in chemistry at University of Erlangen-Nuernberg where he got also the PhD degree. He started his career within chemistry services at Siemens Power Generation Group in 1996 as responsible project manager for decontamination and surface technology. Within chemistry services he held various management positions for project management and research & development. More recently he was director at AREVA NP Uddcomb AB Sweden for the technical center manufacturing & installation and is now since 2009 director for chemistry services. He is an expert for chemical decontamination in operating NPPs and for decommissioning with more than 15 years experience.

At the end of the official Tuesday's program, a ceremony took place during which the **ENKO award** for the life time contribution in the energy field was handed over to **Karol PAVLŮ**



Karol PAVLŮ graduated from the University of Economics in Bratislava, Department of Economic Planning. Between 1992 and 1993 he participated in some study and professional stays/internships in Germany and France. During his career he held several important posts. He is a Vice Chairman of Supervisory Board of PPA CONTROL, Inc. Bratislava, and from 1991 to 1993 he was a President of the Entrepreneurs Association of Slovakia and a member of the Supervisory Board of VÚB. In 1993 he became a Vice President of the National Agency for the Development of Small and Medium Enterprises, in which he was later, in 1999, a President of the Supervisory Board. In 1994 he became a Vice President of the French-Slovak Chamber of Commerce where he has working until now. From 1999 to 2003 he was a President of the Entrepreneurs Association of Slovakia and a member of the Economic and Social Council of the Slovak government.

The Entrepreneurs Association of Slovakia elected Mr. Karol Pavlů as Honorary President of the Entrepreneurs Association of Slovakia expressing the thanks and appreciation of his previous work and activity. Mr. Karol Pavlů currently acts as a chairman of the Community Foundation, the statutory representative of the Lutheran Church in Bratislava and a Vice Chairman of the Board of the University of Performing Arts in Bratislava.

# K a r o l P A V L Ů

## The ENKO award for the life time contribution in the energy field



His personal, managerial and social competent contribution strongly supported development of successful power energy companies active in global world market in various energy projects particularly in the field of heavy current engineering, instrumentation, control and security systems, fire protection, cabling for structures and computer network.



Afterwards the festive social evening was held in premises of Bôrik Hotel



# S E S S I O N

## 3

- FUTURE OF POWER GENERATION – SUSTAINABILITY, RENEWABLES, SMART GRIDS, SMALL SOURCES, ISLAND SYSTEMS, POWER GRIDS' SECURITY •
- WHAT FOOTPRINT WILL FUKUSHIMA LEAVE? •
- FROM CHAOS TO SYNERGY •





**František PECHO** Opening presentation of the moderator, topic introduction and discussion of the essential questions necessary to be solved

After graduating the Slovak University of Technology, Faculty of Electrical Engineering he started to work in SEP, š.p., later in ZSE, a.s. and SE, a.s. Since 1991 he was preparing the project Datagyr C500 – the system for long-distance data collection from electrometers. After system completion he managed its operation. He worked also in international committees and took part on connecting of Slovak transmission grid to European grid. After the institutionalizing of the transmission grid operator (SEPS Company) in 2001 he worked on position of managing director for investments, later for IT and telecommunications; he managed a Slovak dispatch centre and operation; at the same time he was Member of the Board of Directors. He took part on all important Company projects from the beginning till October 2006. Leaving the SEPS Company, he provided consultancy services in OKOnet, a.s. At the present time he works in the position of the development director of ALTERENERGO Inc., company building the renewable energy sources.



**Ladislav KOMPAN** NPP Mochovce Units 3&4 Construction Completion Project Quality Manager, Slovenské elektrárne, Inc., member of Enel Group

#### STATUS OF THE PROJECT OF NPP MOCHOVCE UNITS 3&4 CONSTRUCTION COMPLETION

Meeting Project targets managed by:

- design improvements
- safe construction
- team competences grow

After graduating from SVŠT (Slovak Technical University) – Civil Engineering Faculty with specialization of structural engineering he started to work for Slovenské elektrárne in 1981. He has worked at engineering unit dealing with supervision of Mochovce NPP design, later as a construction supervisor on site. During building of Mochovce NPP Units 1&2 he was responsible for the activities of Project Quality Assurance within QA Department. He worked for Mochovce NPP units in operation at QMS department after commissioning of units. He started working for Project Mochovce NPP 3&4 in 2006 during revision of the Basic Design, then he was appointed as a Project Quality Manager in 2007.





**Jan FIEDLER** Deputy Director, Energy Institute of the Faculty of Mechanical Engineering, Brno University of Technology

#### THE BENEFITS AND THE LIMITATIONS OF SMALL COGENERATION UNITS

- identifying of suitable areas of use of the small cogeneration units based on the fossil fuels and renewable energy sources in municipal and industrial uses
- discussion of the advantages and disadvantages of cogeneration units based on internal combustion engines, gas turbines and steam engines, including their integration into the electricity grid

Jan Fiedler graduated in 1980 Brno University of Technology, Faculty of Mechanical Engineering, specialization Thermal Turbines. His entire professional career is joined with power engineering. He worked as a development engineer of steam turbines in the PBS Brno till 1991. Then he continued as a teacher at the Energy Institute of the Faculty of Mechanical Engineering, Brno University of Technology, where he defended his doctorate in 1996 and became associate professor in 2001. Since 2006 he is the Head of the Department of Energy Engineering and Vice-Director of the Energy Institute. He chairs the several research projects, and has the educational activities in addition to dealing with sources of energy, thermal machines and cogeneration. He is also an expert witness in the Czech Republic and Slovakia for power engineering specialized in thermal turbines, power plants and cogeneration since 2002. So far he compiled more than 30 expert evidences on serious breakdowns in the energy and chemical industries.



**Martin RUŠČÁK** Director, Research Centre Řež Ltd.

#### EUROPE IS RESEARCHING AND DEVELOPING MEANS OF SUSTAINABLE POWER GENERATION OF THE 21<sup>st</sup> CENTURY

- principle streams of R&D in Europe, projects and their contribution to power generation segments
- construction and utilization of large research infrastructures for a development of nuclear power technologies beyond Gen III
- risks and opportunities
- people for new technologies

Graduated in 1985 at Faculty of Physical and Nuclear Engineering, Czech Technical University, he finished his doctoral studies in 1991 at West Bohemian University and reached his MBA from Sheffield Halam University (2001). He worked in nineties in the Nuclear Research Institute in Řež as a team leader for corrosion and microstructural studies focused at ageing management of NPP components. He implemented methodology of evaluation of flow accelerated corrosion for secondary circuits and was responsible for managing projects for CEZ and EPRI in the area of evaluation of reactor internals and coordinated development of experimental facilities. Since 2000 he spent 10 years in Det Norske Veritas, being responsible for the Czech and Slovak units and later in Norway and in the UK was taking responsibility for project development and project management in the nuclear and fossil energy areas as a project director. Since February 2011 he is the director of Research Centre Řež.



**Ivan BENEŠ** Chief Executive Officer, CityPlan Ltd., Prague

#### CRISIS ISLAND SYSTEMS – NECESSARY FUNCTIONALITY OF SMART GRIDS

- World Economic Forum as well as U.S. Joint Forces Command forecast possible crisis in the field of energy, water and food security • insufficient supply of energy, water and food can lead into economic damage and social unrest • the power distributors should be able to provide islanding with utilization of local generation in case of the transmission system failure • presentation of the experience from realized pilot project

Ivan Beneš held Master of Science degree in power engineering from the Czech Technical University (CTU), and held the post-gradual courses on the Faculty of Nuclear Science and Physical Engineering of CTU, and the University of Economics, Prague. He has more than 35 years of experience in the engineering, economy and crisis management. From 1971 to 1990 he worked in Energoprojekt Praha. In 1992 he has established CityPlan Ltd., and has acted till now as its CEO and Executive Head. He was a co-founder of the Czech Association of Energy Economics (CZAEE), which is an affiliate of IAEE. In March 2008 in Brussels he was elected by a head of the topical sub-group WG2.2 Distributed Network Security (in the framework of the ESRIF WG2 Security of Critical Infrastructure). The goal of ESRIF (European Security Research and Innovation Forum) is to facilitate the dialogue between the private and public sector, which is necessary to increase the safety of infrastructure and overcome possible crises. Currently he is dealing with the security research in the field of critical infrastructure, energy economics and the impacts of energy use on a sustainable development.

Mr. Beneš holds lectures at the Institute of Emergency Management of the University of Economics; and he has published more than 60 articles in professional journals.



## FUKUSHIMA NPP LESSONS LEARNED, AND THE CONSEQUENCES ON THE FUTURE DEVELOPMENT OF THE POWER GENERATION IN THE 21<sup>st</sup> CENTURY

Facilitated panel discussion with following experts:



**Andrea ZLATŇANSKÁ** climate and energy campaigner, Greenpeace CEE Slovakia

After her graduation at the Faculty of Ecology and Environmental Sciences from the Technical University in Zvolen, she moved to London and volunteered as a Nature conservation assistant at the London Borough of Camden. From there she moved to the Sustainability department as a full time Sustainability project officer, where she supported sustainability team in promoting sustainable living, working and travelling. Within this role, she also worked as a Business advisor's assistant, providing assistance with environmental audits and recommendations to local businesses, advising on how to lower their carbon footprint. Ms. Zlatňanská has been working for Greenpeace since January 2009 as an energy campaigner. She coordinates campaigns against nuclear energy and promotes renewable energy and energy efficiency. She also works within the climate change sector, which is closely related to energy issues.



**Jozef MIŠÁK** Director for Strategy, Institute of Nuclear Research Řež

He graduated from the Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering. His more than 38 years long performance in the field of nuclear power industry is focused on research and engineering support for safety principles implementation during design and operation of NPPs. He has long lasting experience from several leading positions in the field of nuclear safety. During 1971 – 1993 he worked in VUJE (NPP Research Institute). During 1993 – 1997 he was the first Chairman of Nuclear Regulatory Authority of Slovak Republic. Between 1997 and 2004 he was with IAAE in Vienna, where he worked in the field of elaboration of safety standards and guidelines for NPP accident analysis. At the present time he is the Director for strategy at the Nuclear Research Institute in Řež.



**Štefan ŠKULEC** CEO Emeritus, Slovak Hydrometeorological Institute

He graduated from the Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering and his post-gradual courses in meteorology and climatology completed in the Comenius University in Bratislava, Faculty of Mathematics and Physics. He worked at the Slovak Hydrometeorological Institute (SHMI) and his professional activities focused on research and estimation of the environmental effects of the nuclear power plants. He was the Director General of SHMI in the period 1992–2005. He led research projects for development of the methods for the estimation of atmospheric diffusion of radioactive emissions, the radiation doses during normal operation and accident of the nuclear power sources and the environmental effects of thermal and water emissions of the nuclear power plants. He participated actively in creation and operation of the emergency management system in Czechoslovakia and Slovakia. He managed development of the Early Warning System of Slovakia for Nuclear Accidents. He has rich experiences in the frame of the meteorological services in the Central Europe, EUMETSAT and the World Meteorological Organization. He focuses on the consultation activities at present time.



**Karen WENRICH** independent consultant – geologist/geochemist, Golden, USA

After receiving her Ph.D. in geology/volcanology from The Pennsylvania State University she worked for the U.S. Geological Survey for 22 years working on mining related and environmental projects specializing in uranium. From 2002–5 she worked as a senior uranium geologist for the International Atomic Energy Agency (IAEA) in Vienna in the peaceful uses of atomic energy. While at the IAEA she was a co-recipient of the 2005 Nobel Peace Prize. Since 2005 she has been consulting for the minerals and environmental industries. She is the author of over 160 published papers.





**Eberhard LIEBSCH** Sales Manager, LTV Landmaschinen und Transporttechnik Vertriebsgesellschaft mbH, Berlin

#### BIOGAS PLANT TECHNOLOGY FOR HIGHER EFFICIENCY

- main features of the new generation of biogas plant
- number of working hours per year
- electric efficiency of the cogeneration unit
- quantity and cost of input substrates
- logistic costs
- use of heat produced by the cogeneration unit
- maintenance and repair costs and times
- cost of manpower engaged for the plant

Eberhard Liebsch is a graduated economist. For many years he worked in export of agricultural equipment to different countries in Eastern Europe. As the sales manager of LTV Berlin he is responsible for “Renewable Energies”, based on agricultural resources. Actually the main focus is on erecting and commissioning biogas stations with a capacity till 4 MW in Belorussia. He is organising the co-operation between established German producers, qualified German engineers and partners from Latvia and Belorussia. One of the next tasks assigned to him is the supply of biogas stations with a capacity of about 950 kW to Slovakia.



**Vladimír LUKÁČ** Director, ETOP green energy, Bratislava

#### THE POTENTIAL AND THE LIMITS OF PHOTOVOLTAIC POWER IN SLOVAKIA – THE NEW TECHNOLOGIES IN USE

installation of 75 MW photovoltaic energy in the Central Europe – using fixed and intelligent systems

Director of production company ETOP – working in the field of energy. After graduating from Žilina Technical University, Faculty of Engineering with specialization on industrial engineering he worked in MATADOR, Inc. as a managing designer for development of machines for rubber industry. In 1991 he established company ETOP – industrial company working in the field of metal and rubber production, wheels assembly and installation of photovoltaic power plants. He is an author of more than 70 patents and industrial designs.

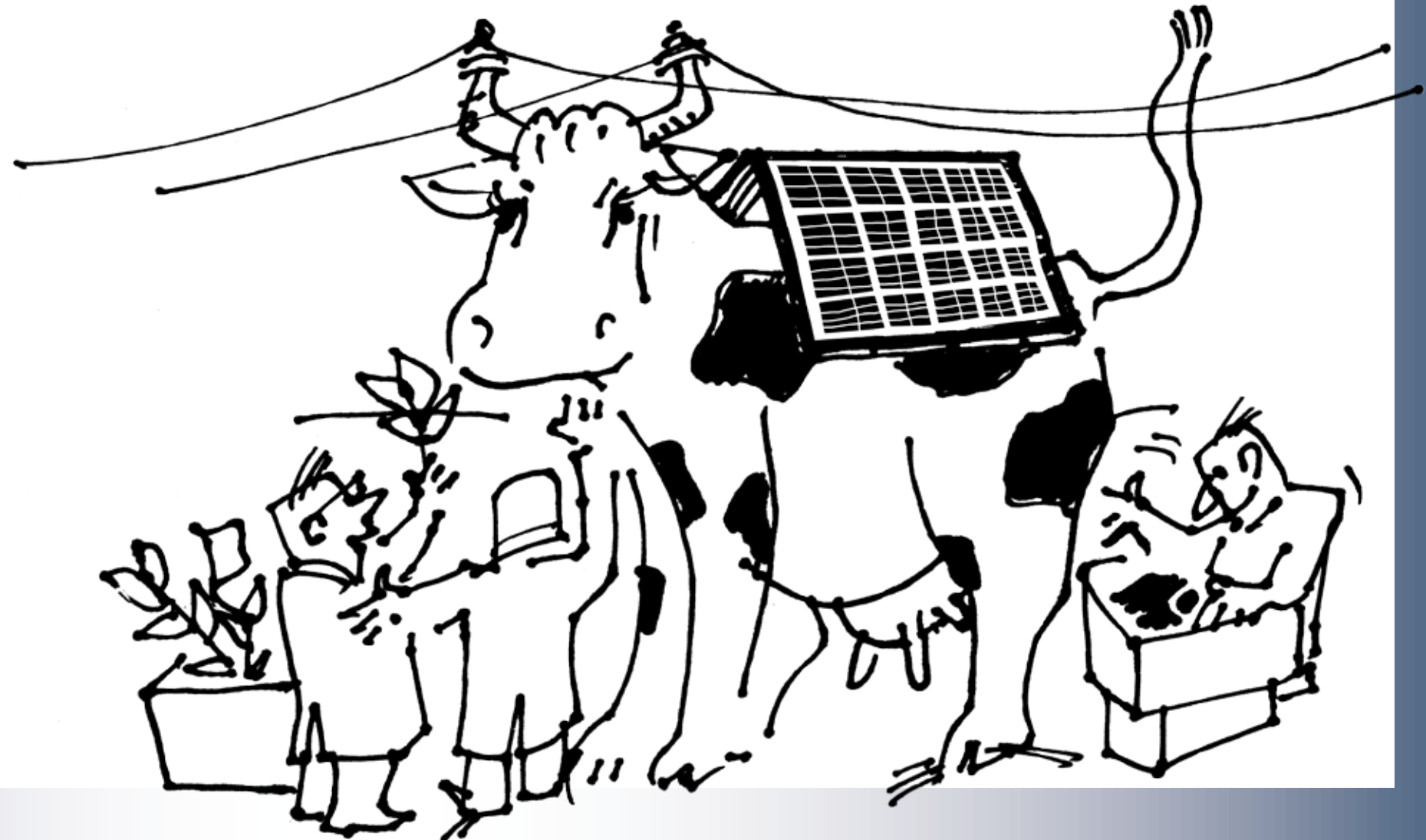


**Ľuboš TOMÍK** Director, CESys Ltd., Trnava

#### THE PROGRESS IN ENERGY EFFICIENCY SERVICES IN EU AND IN SLOVAKIA

- definition of Energy Efficiency services (EES)
- bussiness cases of energy efficiency service across market • services models for EES • EES service packets

Director of consulting company CESys Ltd. working in the field of energy. After graduating ČVUT, Faculty of Engineering with specialization on nuclear energy he worked in SE, a.s. During establishing of Nuclear Regulatory Authority of the Slovak Republic he worked in the field of probabilistic safety assessment. He gained experience in abroad in number of industry and energy companies. During last years he worked as manager in foreign IT companies solving the opening and deregulation of Slovak energy market. During the period of 2002 – 6 he was managing director of CENS (Centre for Nuclear Safety), international company working on the region of Central and Eastern Europe. Regarding the SE, a.s., privatization he is author and co-author of various studies performing energy market scenario modeling, i.e. Feasibility Study on NPP Mochovce 3 and 4 Completion for Ministry of Economy of the Slovak Republic.



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## Bôrik Hotel

Bôrik 15  
Bratislava  
814 07

### HISTORY OF THE HOTEL

Hotel Bôrik was built during the 1974 year. Author of the design – architect Štefan Svetko – is as well known as author of the inverted pyramid – Slovak Radio Building.

Hotel is located on the hill above the left bank of the Danube river. The view from the big part of hotel rooms and suites are truly impressive.

Hotel has a specific architecture: it has four separate residence, hotel rooms, lounge and terrace with panoramic view of the Danube. Interior was renovated between 1998 – 2003.

source: <http://www.hotelborik.gov.sk/>

