

# **ELECTRICITY SHORTAGE IN SLOVAKIA AND EUROPE – ISSUES AND POSSIBLE SOLUTIONS**

Bratislava, Pálfy Palace
June 3 – 4, 2008

5th Slovak Annual Congress on Power and Energy

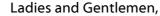
# EN-KO



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Let me welcome all of you in the historical building of Pálfy Palace on the occasion of the 5th Annual Congress on Power and Energy ENKO 2008 "ELECTRICITY SHORTAGE IN SLOVAKIA AND EUROPE – ISSUES AND POSSIBLE SOLUTIONS".

The Congress takes place in the time period when it is necessary to analyze very carefully our energy future. The price of energy, particularly of electricity will play a big role. Security and reliability of supplies as well as the energy comfort will be vital. It is evident even now that in short term future the most important role will be played by electricity sufficiency – fulfilling of permanently growing demand. In spite of the extraordinary stress put on renewables it is clear, that the electricity shortages will not affect only Slovakia but most of Europe countries. Slovakia knows the relevancy of this threat. Number of new investments intentions and projects as well as their support from the side of the state is evidence of it. What the energy future of Slovakia could and should be is just the matter the experienced and competent expert will speak about.

Let me shortly repeat the basic issues to be discussed during our Congress:

... electricity shortage – we already have a shortage – when will it end? ... energy supply security – input sources for investment and operation ... renewables – saving energy or a dead end?

Ladies and gentlemen,

I believe that our Congress will contribute to the understanding of the present challenges to the power industry, clearly identifying the ways leading to the optimized solutions. I hope the information gained during the Congress will make possible to get the brighter view on the energy problems, solutions and goals. Finally – it is our intention.

As conclusion – let me to express my great thanks to all who have participated on ENKO 2008 realization. To Partners, Major Partners, all speakers, and last (but not least) to the team of organizers, who have prepared the Congress and arranged its fluent performance. Many thanks to all of you, who are coming to take part and share on the working and inspiring atmosphere of ENKO 2008 Congress.

Marez.

Jiří Marek ENKO 2008 Chairman



# PROGRAMME

# Tuesday, June 3, 2008 - morning

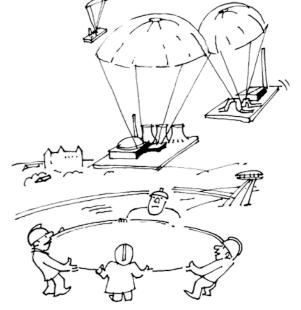
# NEW INVESTMENTS AS A RESPONSE TO THE ELECTRICITY SHORTAGE IN SLOVAKIA AS EVIDENCE OF THE CAPABILITIES AND STRENGTHS OF THE SLOVAK ENERGY SECTOR, LEADING TO SELF-SUFFICIENCY AND EFFICIENCY

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

Juraj CHREN Planning and Strategy Manager, SE – Enel, Bratislava



ELECTRICITY SHORTAGE IN SLOVAKIA AND INVESTMENT PLAN OF ENEL – SLOVENSKÉ ELEKTRÁRNE New investments – an important part of energy branch business



After graduating the study of nuclear chemistry at the Comenius University in Bratislava he started his professional career in NPP Mochovce. In 1991-1995 he worked and studied in USA, where he graduated MBA study specialized in finance. After his return to Slovakia he worked in investment banking, venture capital and consulting. Since 2006 he is in Slovenské elektrárne, a.s. in the position of the manager for planning and strategy at the Division of Trade, where he is responsible also for assessment of production sources profitability and economical feasibility of strategic investments.

Matthias NEUBRONNER Senior Vice-President for Generation, E.ON Energie AG, Munich



#### E.ON IN SLOVAKIA: ACTIVITIES AND STRATEGIC OUTLOOK

Central Eastern Europe is a vibrantly growing region with highly interesting investment opportunities in power generation. Slovakia in particular offers potentials that fit E.ON's strategy for a balanced portfolio.

After graduation of mechanical engineering and power planttechnology at the technical universities of Braunschweig and Munich in 1988, he worked till 1995 as the scientist at institute of thermodynamics at the Munich Technical University, where he finished his PhD study with thesis on thermal radiation heat transfer in coal fired boilers. Since 1995 he has been occupying several positions within E.ON and its predecessor-companies as a Maintenance specialist at coal fired power station Kiel, Production Manager in coal fired power station Farge/Bremen and Vice president of Technical Coordination Power stations in E.ON Kraftwerke Hannover. Since 2007 up to date he works as a Senior Vice President of Generation in E.ON Energie München.

#### Petr ŠTULC Head of Strategy, ČEZ, Prague



## ČEZ INVESTMENT ASPIRATIONS AND INTENTIONS IN SLOVAKIA

What is the way for Slovakia and neighboring Central European countries to ensure a sufficient and reliable electricity supply with minimum greenhouse gases emissions?

Petr Štulc works in CEZ since 2004. His key responsibilities are development of market strategy for CEZ group, evaluation of acquisition targets throughout Europe, design of future CEZ generation plant portfolio and market analysis.

Prior to joining CEZ, he worked as a consultant in McKinsey & Company for five years (1999-2004). While focusing on European power sector, he was involved also in telecommunications, consumer goods, banking and insurance projects in Europe and America. In 1992-1998 Petr carried out research in geophysics (climate change and plate tectonics) in Czech Academy of Sciences and University of Utah.

Petr completed PhD in 1995 and MSc in1992, both in geophysics at Charles University in Prague.

#### Rüdiger LEVERENZ Director Customer Relations – New Projects, AREVA NP GmbH, Erlangen



#### AREVA AND THE EPR – MEETING THE CHALLENGE OF FUTURE ENERGY SUPPLY

AREVA established and is continuously expanding an integrated manufacturing and supply approach for mana-ging several large projects of its generation III+ reactor EPR-1600 on an international scale to meet the new market requirements and to satisfy the customers' requirements.

Rüdiger Leverenz is currently the responsible director for new projects, being in charge of new builds within AREVA NP, liaison officer for the Olkiluoto 3 EPR construction project and key account count manager for RWE. He joined the company in 1980 and has taken several positions in the field of project management, sales and marketing activities for different projects around the world. In particular he was deeply involved in any kind of nuclear power plant projects mainly on a turnkey basis.

During the EPR basic design phase he was appointed to the technical project management being in charge of project organization and implementation. In relation to the Finnish EPR project he was member of the bid team and responsible for the offer preparation including cost calculation. During the negotiation phase he was in charge of the scope of supply definition and the contacts to the Finnish industry in order to establish a domestic suppliers' base.

He holds a degree in system engineering from the Technical University of Braunschweig.

paper was presented by Konstantin JACOBY Regional Director Marketing – CR and SR, AREVA NP GmbH, Offenbach



Konstantin Jacoby started his professional career 1984 as assistant lecturer at the University of Munich, and 1987 he joined Siemens R&D Centre in Munich from where he moved 1995 to Siemens Power Generation Group (the former KWU), where he was for several years responsible for personnel training for nuclear and fossil fired power plants world-wide and for the company's nuclear emergency response centre in Germany. After the process of merger and consolidation of the German and French NPP manufacturers he is in the position of Regional Director Marketing of the AREVA NP GmbH, 2003-2006 for Russia, since 2007 for CR & SR.

He was graduated in mathematics and computer science at the University of Munich where he got also the PhD degree in applied mathematics.

Miroslav OBERT Member of the Board and Division Director of V1 NPP, JAVYS plc. (Nuclear & Decommissioning Co.), Jaslovské Bohunice



JAVYS DEVELOPMENT STRATEGY AND ITS CONSISTENCY WITH SLOVAK ENERGY POLICY

Wide range of activities - V1 NPP shutdown and decommissioning preparation, A1 NPP decommissioning, radioactive waste and spent fuel management, preparation of new nuclear power plant construction in the area of Jaslovské Bohunice –safety and minimization of environmental impacts is the priority.

After graduation at the Slovak Technical University in Bratislava, Faculty of Electrical Engineering, specialization in Nuclear Power Plants, in 1984 he started his professional career in SEP, as a technician, then as an operator of secondary circuit. During 1998-2006 he worked in several positions: reactor operator, senior reactor operator, shift engineer, safety engineer, head of operation control dpt. and head of NPP V-1, Bohunice, operation section. During privatization of Slovak Power Company he actively participated in the process of separation as a team member for NPP V-1 separation. In the company JAVYS, plc. he worked as a director of V1 Operation Section. In April 2008 he was appointed to the position of Division Director of NPP V-1 and a member of the Board.

paper was presented by Dobroslav DOBÁK Spokesman, JAVYS plc. (Nuclear & Decommissioning Co.), Jaslovské Bohunice



Dobroslav Dobák graduated the Slovak University of Technology in Bratislava, Faculty of Mechanical Engineering. He started his professional career in Slovenské elektrárne, where his activities were focused on nuclear power industry, during last 15 years in the field of public relations. After separation of decommissioning activities from Slovenské elektrárne and establishing the new company JAVYS, he has been working as its spokesman and head of Communication Dept..



Ján KOLARČÍK Director Energy Strategy and Economy, U.S.Steel Košice



# IMPACT OF ECONOMIC AND LEGISLATIVE LIMITS TO ENERGY SELF-PRODUCTION WITH REFERENCE TO A STEEL COMPANY

Europe needs new energy sources. Do the European politics understand this need really?

After graduation of the Slovak Technical University in Bratislava, Faculty of Electrical Engineering with specialization in electrical power engineering, he started to work in the field of power industry in oil and petrol factory Slovnaft Bratislava and in steel factory VSŽ Košice. Since 1992 he has been occupying in VSŽ Košice several managerial positions – in years 1992 – 1996 position of the Head of Energy Operation, thereafter till 1998 the position of the Head of Power Engineering, cookery and ecology technical development department, and then he was the Director of VSŽ company power plant. Since 2000 he has been working on US Steel Košice as the Head of turbine hall operation, then as the Deputy Division Director for power engineering till 2005. At the present time he is the Director for Energy Strategy and Economy in US Steel Košice.

#### Tuesday, June 3, 2008 - afternoon

#### Ľubomír JAHNÁTEK, František JANÍČEK

## QUO VADIS IN SUFFICIENT SUPPLY OF ELECTRICITY IN THE FUTURE

Current status of the Slovak energy sector in frame of interconnected system considering the electricity sufficiency and solutions for Slovakia and neighboring countries

Lubomír JAHNÁTEK Minister of Economy of the Slovak Republic





After graduating the Slovak Technical University in Bratislava, Faculty of Chemical Technology

with specialization on rubber and plastics treatment in 1978 he started to work at the Plastics Processing and Application Research Institute in Nitra, where he was occupying several positions from a research worker to a division director. Then he worked as a Director for strategy in the company Duslo, a.s. Šal'a, later as a Director of Plastika, a.s. Nitra. In years 2005 - 2006 he was a Head of detached office of the Faculty of Chemical Technology at the Slovak Technical University in Nitra. In 1991 he got the PhD degree in the field of macro-molecular chemistry. In 2000 he was promoted to visiting Associated Professor at the Faculty of Chemical Technology of the Slovak Technical University in Bratislava, in 2004 he was habilitated as Associated Professor at the Slovak Technical University, Faculty of Materials Science and Technology in Trnava, in specializationfor material engineering. During 1993 - 2003 he was a representative of the Federation of Employers' Associations of the Slovak Republic in the UNO International Labour Organization in Geneva. In years 1994 - 2003 he was a member of the UNO International Employers Organization Committee in Geneva. Moreover, he was a member of several university convocations.

František JANÍČEK Professor of the Energy Dept. and Vice-Rector, Slovak Technical University, Bratislava



Prof. Janiček belongs to top specialists in the field of electric protections and creates conditions for advanced electric protection systems application. He has been working for more than 25 years in the field of electric protections, electric stations and energy sector issues. He has 25-years of scientific and pedagogic practice. He developed comprehensive methodology of protection systems assessment with regard to reliability and optimum interval of system readiness in fault conditions.

He graduated the Faculty of Electrical Engineering at the Slovak Technical University in Bratislava, where he got PhD. degree. Within the years 2000-2007 he was the Dean of the Faculty of Electrical Engineering, STU. Since 2007 he is the Vice-Rector for development at STU Bratislava. As the author and co-author he was dealing with theoretical solutions focused on electrical engineering and with projects for practice inland and abroad. Results of his work are applied also in the Czech Republic, Poland, Hungary and Germany. He has developed an advanced concept for subjects orientated to electric stations, electric stations and elements of electricity supply system, heavy-current elements and systems.

He is the member of the Slovak Committee WEC, member of body of editors of magazine EE, statutory representative of Association EE (eight organizations), member of Nuclear Safety Committee of SE, member of several university convocations in Slovakia. At the present time he is the Chairman of the State Programme Committee for development of energy sector and energy systems, he is also the member of a team responsible for development of the Slovak Energy Policy.

Hannes WIMMER Head of International Operations, TÜV SÜD Industrie Service GmbH, Energy and Technology, Munich



NUCLEAR ENERGY – ASPECTS OF PUBLIC ACCEPTANCE Risk perception is different – It's not a question of technical figures – It's a question of "trust"

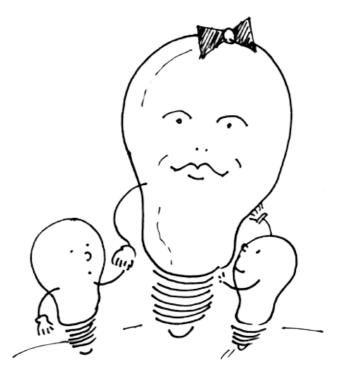
After graduating the study of chemistry at the Technical University in Munich he got the PhD degree related to Laserspectroscopy of Transuranic Elements in Aquatic Systems of a Final Waste Repository. Since 1992 he has been working in TÜV SÜD in several positions – till 1998 he was an expert for Radioactive Waste Management, then till 2000 he was a Head of the Radioactive Waste Management Group. During 2000-2002 he worked as an Assistant Manager to the Board of Directors in TÜV SÜD AG. Since 2002 up to now he has been working in position of a Head of Department Reactor Core and Plant Dynamics, at the same time since 2006 in positions of a Head of International Operations, Nuclear Technologies in UK and since 2008 also of International Operations of TÜV SÜD IS, Energie und Technologie.

panel discussion on the topics:

ELECTRICITY SHORTAGE IN SLOVAKIA AND EUROPE – ISSUES AND POSSIBLE SOLUTIONS

#### participants:

Juraj CHREN Christopher Timothy DINSDALE Ján KOLARČÍK Rudolf KVETÁN Rüdiger LEVERENZ Matthias NEUBRONNER Petr ŠTULC Hannes WIMMER



#### Christopher Timothy DINSDALE Manager, Energy and Utilities Advisory Services, KPMG Hungary, Budapest



"Common problem but individual answers"; meaning that the solution lies in a variety of "smaller" solutions and each of these is unique in detail depending upon the country.

He has graduated the Queen's University (1999) and the Schulich Business School (2001) in Canada. His experience in the field of energy sector is orientated to generation, distribution, regulation and licensing. In the past he participated in projects covering most of the Central and Eastern European region both within the electricity and natural gas sectors. He has most recently managed a large infrastructure investment project within the electricity generation sector; this work has included a detailed feasibility study, preliminary assistance with licensing and financial forecast for the proposed project. Another recent and ongoing project is regarding the reorganization and creation of a national Romanian electricity champion. He has also managed a market entry strategy project for a large energy market participant, which included a detailed overview of the domestic electricity market, regulatory market, proposed market entry strategy and high level implementation plan.

Rudolf KVETÁN Member of the Board of Directors and Managing Director for Energy Strategy, Development, Investment and International Cooperation, SEPS, a.s., (Slovak Transmission Grid Co.), Bratislava Our way of secure and reliable electricity supply leads up towards you



He graduated ČVUT in Prague and Moscow Power Engineering Institute. After graduating the study he has been continually working in energy sector. In years 1966-1976 he worked in the nuclear power plant in Jaslovské Bohunice. During 1976-1982 he was a head of NPP dept. in Investičná výstavba energetiky Slovensko in Bratislava, later he was a deputy director for investments implementation. In 1982-1985 he was a deputy director for preparation and nuclear safety in NPP Mochovce. During 1985-1994 in SEP, š.p. he occupied a position of technical director and later position of general director. In years 1994-1995 was a Vice Chairman of the Board and managing director for strategy and investments in SE, a.s.. Till 2004 he was the Head Executive and general director of the company S-line, Ltd. Žilina. During 2005-2006 he was the chairman of the Board of GovCo, a.s., (currently JAVYS, a.s.). Since October 2006 he is working in top management of SEPS, a.s.

# Festive social evening





Award giving to the winners of the student's contest called for the topic:

# A – SECURITY OF ENERGY SUPPLY – PRESENT STATUS AND THE OUTLOOK B – WILL NUCLEAR ENERGY BE QUALIFIED AS A RENEWABLE ENERGY SOURCE?

The works were evaluated by the following experts:

Matej Zachar, Slovak Technical University, Bratislava Martin Grešš, Ekonomy Univerity, Bratislava Jiří Marek, JMM consulting, Prague Ľuboš Tomík, CESys, Trnava

Topic thesis were prepared by Martin GREŠŠ, Ekonomy Univerity, Bratislava, and by Matej ZACHAR, Slovak Technical University, Bratislava



# Martin GREŠŠ

After graduation at the Economy University in Bratislava (2001) he started his career ofuniversity teacher – Assistant Professor (Chair of Diplomacy and International Relations of EU Bratislava). During the year of 2001 he was associated with Office of Government (tasks of communication strategy and availability of information connected with the constitution of EU info-line). In the framework of teacher's mobility he was in Finland, and he finished longterm language course in India. As scientist – teacher he deals with the problems of oil and he holds the lecture "Oil in the world economy". He writes contributions to the conferences focused on oil problems.



Matej ZACHAR

In 2007, after graduating from the Faculty of Electrical Engineering and Information Technology of the Slovak Technical University in Bratislava in Power Engineering, he started PhD study at the Department of Nuclear Physics and Technology in the field of study Nuclear Power Engineering. In his thesis he mainly deals with the problems of nuclear installation decommissioning and radioactive waste management.







Results of the contest were presented by **Karol PAULŮ**, Honorary President of the Entrepreneurs Association of Slovakia





**E ERASMUS** 



# **RESULTS:**

CATEGORY A STUDENTS FROM ECONOMICAL UNIVERSITIES
SECURITY OF ENERGY SUPPLY – PRESENT STATUS AND THE OUTLOOK

# 2<sup>nd</sup> – 3<sup>rd</sup> prize:

Martina FECKOVÁ Faculty of International Relations, Economy University, Bratislava NEW CHALLENGES OF THE ENERGY SECTOR

# Jana ONDRÁŠKOVÁ

Faculty of International Relations, Economy University, Bratislava SECURITY OF ENERGY SUPPLY – PRESENT STATUS AND THE OUTLOOK

CATEGORY B STUDENTS FROM TECHNICAL UNIVERSITIES
WILL NUCLEAR ENERGY BE QUALIFIED AS A RENEWABLE ENERGY SOURCE?

# 1<sup>st</sup> prize:

Jana VETERNÍKOVÁ Slovak Technical University, Bratislava, Institute of Power Energy RENEWABLE SOURCES VERSUS NUCLEAR ENERGY

# 2<sup>nd</sup> prize:

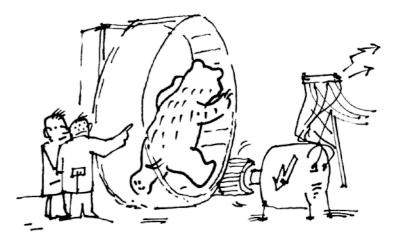
# Michal PÁNIK

Slovak Technical University, Bratislava, Institute of Power Energy HORIUM – URANIUM FUEL CYCLE AS AN OPTION TO CALL THE NUCLEAR ENERGY RENEWABLE; NUCLEAR FUEL PRICE OUTLOOK



## Wednesday, June 4, 2008 - morning

ENERGY SECURITY – WHAT ARE THE STRATEGIC, GEOPOLITICAL, REGIONAL, MARKET AND LEGISLATIVE STARTING POINTS AND CHALLENGES FOR ENERGY INVESTMENT AND OPERATION???



Juraj KRIVOŠÍK Deputy Direcor, SEVEn, The Energy Efficiency Center, Prague



# ENERGY LABELING OF HOUSEHOLD APPLIANCES – AN EXAMPLE OF A SUCCESSFUL MECHANISM SUPPORTING ENERGY EFFICIENCY. PRESENT STATE AND EXPECTED CHANGES.

Energy labeling of household appliances is an example of a mechanism, which brings energy savings to both the final users and the society as a whole. Currently, an update of the energy label system is being prepared, which will reflect the development of operation efficiency of appliances and which will include new types of products.

Juraj Krivošík has completed the University of Economics in Slovakia and an MA in Energy Studies at the University of Sheffield (UK). He also worked for several NGOs working on energy efficiency and conservation initiatives. He is an author and co-author of several publications focused on economic and social aspects of energy production and consumption. At SEVEn he works since 9/2000 and in his work he focuses on defining the obstacles to a more successful implementation of energy saving initiatives and on designing programs promoting efficient use of energy. He works on projects of economic analysis of the energy systems, the impact of subsidies and energy prices upon its consumption, and the promotion of energy efficiency. He coordinates international projects in the field of household appliances energy labeling and energy saving lighting. He is a Managing Editor of the newsletter "News at SEVEn".

# Milan JEŽOVICA Foreign Policy Analyst, M.E.S.A.10, Bratislava



## GEOPOLITICS AND ENERGY SECURITY OF SLOVAKIA

Is foreign policy in full compliance with Slovakia energy security needs?

He started his professional carrier at the Federal Ministry of Foreign Affairs in Prague after graduating in International Law at the Moscow State Institute of International Relations. In the beginning of the 90s he worked as the Consul in Washington. Later, he led the Department of Human Rights at Slovakia's MFA. He represented Slovakia before the European Court of Human Rights, Committee for Human Rights, at the UN, OSCE, Council of Europe and other international organizations. At the brink of the new century he was Deputy Chief of Mission to Ambassador Martin Bútora and worked on Slovakia's accession to the OECD, NATO and the EU. During the second term of the Prime Minister Mikulas Dzurinda he was his Foreign Policy Advisor. After the parliamentary elections in 2006 he became a member of M.E.S.A.10. He concentrates on European policy, transatlantic relations and support of freedom in the world.

#### Ondrej STUDENEC Head of Regulation Dpt., SPP (Slovak Gas Company), Bratislava



SECURITY OF GAS SUPPLY, STRATEGIC ROLE OF "SPP" IN EUROPE AND CHANGES IN THE GAS BUSINESS ENVIRONMENT Instability of business environment could jeopardize not only competitiveness of our power industry, but also energy supply security

Ondrej Studenec is the Head of regulation department in SPP since 2005. He has graduated the Faculty of Mechanical Engineering at the Slovak University of Technology in Bratislava. In years 1999-2002 he was the general director of Energy Section at the Ministry of Economy of the Slovak Republic. He was responsible for restructuralization and privatization of energy sector, for establishing of an independent regulatory body and for access negotiations of Slovakia to EU in the chapter of energy sector. During 2002-2004 he worked at the Slovak Embassy in Stockholm as the Councillor for Trade. During the year 2005 he was dealing with elaboration of Lisbon Strategy of Slovakia at the Slovak Ministry of Finance.

#### Ivan BENEŠ Chairman and Managing Director, CityPlan Ltd., Prague



# SECURITY RISKS GENERATED WHEN PRIORITY IS GIVEN TO COMMERCIAL CONSIDERATIONS IN THE ENERGY SECTOR – UNCERTAINTY DISCOURAGES INVESTMENT Has the safety become an externality?

Ivan Beneš has Master of Science degree in power engineering from the Czech Technical University. He has more than 35 years of experience in the engineering, economy and crisis management. From 1971 to 1990 he worked in Energoprojekt Praha power engineering company. In 1992 he has established CITYPLAN, a knowledge based company, and works as its Chairman and Managing Director. His areas of particular expertise include critical infrastructure protection, business continuity planning, energy engineering and economy analysis. Mr. Benes is member of expert group for preparation Czech's Presidency of the EU Council in 2009. Mr Benes is also member of European Security Research and Innovation Forum's (ESRIF) Working Group 2 (WG2) dealing with security of Critical Infrastructures. He was voted to be the leader of WG2.2: Distributed Network Security. The creation of a "European Security Research and Innovation Forum" was announced at the "2nd European Conference on Security Research" in Berlin on 26 March 2007. Public-private dialogue in the field of security research is important to increase the security of infrastructures and utilities and help restore security in a crisis.

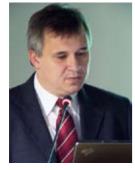
#### Alena ŠALAMONOVÁ Head of Regulatory Affairs Department, SE – Enel, Bratislava



NEW EU LEGISLATION – ENERGY AND CLIMATE PACKAGE – REGIONAL AND GLOBAL SOLUTIONS FOR ELECTRICITY MARKET SECURITY Stability and predictability of regulatory and legal environment is one of important prerequisites for investments and security of supply.

She graduated ČVUT, Faculty of Nuclear and Physical Engineering in Prague. Since September 2006 she is a manager of regulatory and market affairs in Enel-Slovenské elektrárne. She is long-acting in the issues of electricity market liberalization and implementation of European energy legislation into the national legal frame. During nineties she managed in the Energy Research Institute several conceptual studies and international projects in the field of regulatory methods development and application. Then she dealt with restructuralization of the Slovak energy sector and transformation of Slovenské elektrárne. In years 2001-2003 she was member of the Board in Slovenská elektrizačná prenosová sústava, a.s., and managing director for development and international cooperation. In 2002-2006 she was in UCTE Steering Committee on the position of national system operator representative.

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



## THE ENERGY SECURITY STRATEGY OF THE SLOVAK REPUBLIC AND LEGISLATIVE INSTRUMENTS IN THE ENERGY SECTOR

The goal of energy security strategy is to achieve a competitive energy sector providing safety, reliable and effective supply of all energy types for the acceptable prices taking into account protection of customers, protection of the environment, sustainable development, security of supply and technical safety.

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 – in 2004 he became the director of Energy Policy Section and since September 2007 he is undertaking the function of Department Energy General Director. 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.

Wednesday, June 4, 2008 - afternoon

RENEWABLE ENERGY SOURCES – ENERGY SOLUTION OR DEAD END?

Jozef MIŠÁK Director for Strategy, Institute of Nuclear Research Řež



COMPARISON OF ELECTRICITY PRODUCTION FROM THE NUCLEAR ENERGY AND FROM THE RENEWABLE ENERGY SOURCES Focusing on safe, sustainable, competitive and "green" energy sources

He graduated ČVUT, Faculty of Nuclear and Physical Engineering In Prague. His more than 37 years long performance in the field of nuclear power industry is focused on research and engineering support for safety principals 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 worked as the first Chairman of Nuclear Regulatory Authority of SR. Till 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.

Vladimír VACHO Head of Energy Financing Team, Dexia banka Slovensko, Bratislava



POSSIBILITIES OF ENERGY PROJECTS FINANCING IN SLOVAKIA Financial sources are available for quality projects.

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 seven years in the Dexia Bank and is responsible for preparation and financing of energy sector projects. He is the leader of a team dealing with implementation of several pilot projects in the field of renewable energy sources use, for which was the Dexia Bank awarded by the Financial Times and IFC as the "Bank of sustainable development" for 2007.

Martin BERGER Head of Wind Power Generation, Siemens AG Österreich, Vienna



WHEN THE WINDS OF CHANGE ARE BLOWING ...

EU target - 20% renewables in 2020 • member countries will have to meet challenging targets • large growth of wind power to be expected both on- and offshore • Wind Power of Siemens is ready to cover this huge demand growth

In 1999 he became Diploma Engineer in Industrial Engineering. In years 2000-2003 he was studying the post gradual at the Vienna University of Technology - Institute of Power Systems and Energy Economics and got the PhD. degree in Energy Economics, and participated in the research of renewable energy (wind, solar, hydro, biomass, etc.). Since 2003 he has been working in the company Siemens AG Österreich in Sector ENERGY in Young Power Programme and the area of business development, in years 2006-2008 he was appointed in the position of Executive Assistant to the Head of Sector ENERGY. At the present time he is the Head of Wind Power Generation.

Stanislav HUDCOVSKÝ Project Manager, EGU ENERGIA, Ltd., Bratislava



RENEWABLE ENERGY SOURCES AND THEIR POSITION IN THE ELECTRICITY POWER SYSTEM Each reasonably consumed kilowatt-hour of electricity generated by renewable sources becomes an investment into the future.

JHe graduated the Technical University of Košice, Faculty of Metallurgy and post gradual study of welding at the Slovak Technical University in Bratislava, Faculty of Mechanical Engineering. In years 1968-1975 he worked in Atómové elektrárne Bohunice focusing on assessment of material characteristics in nuclear power plants. Since 1975 he undertook a function of leading worker in the energy research institute EGU in Bratislava with specialization for construction and operation of power plant with aero engines, operational reliability and lifetime of components for nuclear and coal power plants, he collaborated in development of concepts and legislation for the Slovak energy sector. In 2003 he became a member of the Board of SEPS, a.s., and Managing Director of Department for Investments Development and International Cooperation. Since 2007 he is working in EGU as the project manager of international projects focused on integration of distributed sources into the electricity system.

#### Johann JANKER Head Executive, Ecowind Handels-und Wartungs GmbH, Kilb



# WIND POWER POTENTIAL AND CHALLENGES FOR THE FUTURE

Renewable sources have a big potential to represent the stabile role in power industry in future. Why not to use them...

Hans Janker is a partner and chair person of the Austrian AAG Holding GmbH, which subsidiaries are active on the market with technologies for agriculture, production of agricultural products and packages. Significant part of the holding is also the sector of wind power industry, in which the company Ecowind belongs to pioneers. Ecowind as one of the first companies in Austria has constructed already in 1995 its own wind power plant. Consequently it was followed by construction of other wind parks, development of distribution network and service for company Bonus (Siemens) in Austria and abroad. Nowadays Ecowind is operating wind parks in Austria, Hungary together with planning of wind parks in Slovakia, Croatia, Romania and Bulgaria.

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# ROLE OF RENEWABLE ENERGY SOURCES IN DECREASING GREENHOUSE GAS EMISSIONS

Optimal use of renewable energy sources is the key issue for future years in global framework. Without mastering it greenhouse gas emissions cannot be reduced to appropriate level.

K. Polanecky graduated on Czech Technical University, Prague, in 1994. Since 1996 he worked for several NGOs (Hnuti Duha, Veronica, Greenpeace) on energy issues (coordination of energy efficiency projects, preparation of publications about renewable energy sources, climate change and nuclear energy). He also worked as a technician for company Solarní systémy s.r.o.





Congress Chairman Jiří MAREK Executive Head, JMM consulting, Prague



He is the consultant in the field of power industry and is the Head Executive of JMM Consulting, Ltd. – company focused on advisory services and organization of professional actions. After graduating ČVUT, Faculty of Technical and Nuclear Physics he worked in research, since 1974 has been working in power industry field (since 1996 in ČEZ). Last 15 years he was the advisor of Minister of Industry and Trade, chairman and vice-chairman of Supervisory Board in ČEZ, member of supervisory boards in several energy distribution companies and advisor of Deputy Ministers of Finance. Relating to this he was dealing with reorganization of state administration in power industry, with development of state energy policy, with establishment of State Office for Nuclear Safety and with preparation of Czech power industry privatization. He is occupied by publication activities, mainly in the field of nuclear power industry, has wide experience in organizing of international and specialized professional conferences and meetings. His positions are stated in TV, broadcast and economic periodical magazines.

Congress Vice-Chairman L'uboš TOMÍK Director, CESys, Trnava



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 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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