WEC 시드니 총회 발표자료 소개

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WEC 제19차 총회가 2004. 9.5-9일간 호주 Sydney에서 개최되었습니다. 이 행사에서는 세계 에너지업계 저명인사들의 기조연설, 원탁토론, 논문 등 각국의 에너지정책, 에너지관련 기술 및 기업 운영에 대한 실용적인 자료 약 300편의 중요한 발표가 있었습니다. 아래와 같이 소개하오니 자료의 구체적인 내용은 위의 WEC 웹사이트를 이용하시기 바랍니다

--편집자주

기조연설(Keynote Address)

KA1 Our Energy Future: Delivering Sustainability

- Our Energy Future: Delivering Sustainability Chair's Introduction, Mr. Francois Roussely, Chairman & CEO of Electricite de France, France
- The Promise of Renewable Energy, Dr. Mohamed T. El-Ashry, Former Chair of Global Environment Facility and Facilitator of Bonn Renewable Energies 2004, United States
- -Our Energy Future: Delivering Sustainability: The View form China, Mr. Zhang Guo-bao, Vice Chairman, State Development and Reform Commission, China

KA2 The Path to Sustainability; Accessibility, Availability, Acceptability

- The Path to Sustainabilty: Chair's Introduction, Shri P.M. Sayeed, Minister of Power, India
- Delivering Sustainability in an Energy Company, Mr. Charles Goodyear, CEO of BHP Billiton, Australia
- The Path to Sustainability: Improving Access to Energy, Mr. Jose Antonio Ocampo, Under-Secretary-General, United Nations Department of Economic and Social Affairs
- Customer Needs, Political Expectations and Energy Economics: Sustainability as a Challenge for European Energy Companies, Mr. Roels, President and CEO of RWE AG, Germany

KA3 Markets, Geopolitics, and Energy Security

- Liberalisation of the Electricity Sector: Embarking on a Global Change, Mr. Anatoly Chubais, CEO of RAO/UES, Russian Federation
- Markets, Geopolitics, Energy Security and Sustainability, Mr. George Anderson, Deputy Minister, Natural Resources Canada, Canada
- Japan's Contribution to the Sustainable Growth of the Global Economy, Mr. Teruaki Masumoto, Vice Chairman, Federation of Electric Power Companies, Japan
- Markets, Geopolitics and Energy Security, Mr. Purnomo Yusgiantaro, Minister of Energy & Mineral Resources and Chairman of OPEC, Indonesia

MF01 Ministerial Forum

- World Energy Issues: the Algerian Viewpoint, H.E. Chakib Khelil, Minister of Energy and Mines, Algeria
- A Sustainable Energy Future, Ian Macfarlane MP, Minister of Industry, Tourism and Resources, Australia



원탁토론(Round Table)

RT1 Non-Fossil Fuels: Will They Deliver?

- Status and Challenges of Nuclear Power in Korea, Mr. Meng-Hyun Yoon, Senior Vice-President, Korea Electric Power Corporation, Korea (Republic)
- Non Fossil Fuels: Will They Deliver Mr. Jerson Kelman, President, Brazilian Water Agency, Brazil
- Fossil Fuels: Will They Deliver? Mr. Paul Broad, CEO, Energy Australia, Australia

RT2 Climate Change: Beyond Kyoto

- Energy and Climate Realities, Mr. Kiell Hugo Bendiksen, Managing Director, Institute for Energy Technology, Norway
- Climate Change: Beyond Kyoto, Ms. Anne Lauvergeon, Chairman, AREVA, France
- Challenges and Opportunities in the Context of Asia with Particular Reference to CDM, Mr. Khalid Rahman, Deputy Director General Regional and Sustainable Development Department, Asian Development Bank

RT3 Coal: Confronting the Challenges

- Coal: Confronting the Challenges: Chair's Introduction, Mr. Preston Chiaro, CEO Energy, Rio Tinto plc, United Kingdom
- The Role of Coal in China: Constraints and Alternatives, Mr. Zhou Dhadi, Director General, Energy Research Institute National Development and Reform Commission, China
- Coal: Confronting the Challenges A View from South Africa, Mr. Sipho Nkosi, CEO, Eyesizwe Coal Pty Ltd, South Africa
- Coal: Confronting the Challenges: The View from Billiton, Mr. John Smith, Chief Operating Officer Energy and Coal, BHP Billiton, Australia

RT4 Energy Market Reform: Success or Failure?

- Energy Market Reform in India, Mr. Anil K. Kutty, Joint Secretary, Ministry of Power, India
- Energy Market Reform, Mr. Greg Maddock, CEO, Energex, Australia
- Energy Market Reform: Success or Failure, Mr. David Manning, Senior Vice-President, Keyspan Corporation, United States

RT5 Oil and Gas: A Changing Landscape

- Oil and Gas: A Changing Landscape The Future Role of the Middle East, Dr. Majid Al-Moneef, Advisor to the Minister, Ministry of Petroleum and Mineral Resources, Saudi Arabia
- Oil and Gas: A Changing Landscape, Mr. Jean Marie Dauger, Executive Vice President, Gaz De France, France
- -The bridge from the Oil Age What lies beyond? Mr. Tim Warren, Chairman and CEO Development, Shell Development (Australia) Ltd, Australia

RT6 Clean Energy for Transport: How and When?

- A Sustainable, Growing Air Transport System: Meeting the Environmental Challenge, Mr. Jeffrey Jupp, Chair, Environmental Panel, Aerospace Innovation and Growth Team, United Kingdom
- Future Automative Fuel Trends, Mr. W. Buford Lewis, manager Fuels Development, ExxonMobil Refining & Supply Company, United States)
- Mobility 2030: Meeting the Challenges to Sustainability, Mr. Dennis M. Mooney, Chairman and Managing Director,
 General Motors Holdens Automotive Ltd, Australia

논문발표(Discussion Session)

DS01 Energy Sustainablity in Urban Design

- District Cooling - A Proven Technique for Enhanced Business and Improved Environment, Mr. Thomas Bruce, Euroheat

& Power, Sweden

- Energy Sustainable Development for Cities an Integrated Approach, Mr. Luis Castanheira, ENERGAIA, Portugal
- Delivering Sustainable Buildings, Mr. Terry Dix, Arup, United Kingdom
- Urbanisation of Sydney Implications for Electricity Supply, Mr. Pat Gannon, Energy Australia, Australia

DS02 Pricing Energy for Sustainablity

- Market Based Mechanisms Lessons Learned in Sweden, Mrs. Permilla Axelsson, Swedish Energy Agency, Sweden
- Pricing Energy for Sustainability: Experience of Emissions Trading in the European Programme, Mr. Richard Gledhill, PricewaterhouseCoopers, United Kingdom
- Gas Energy Pricing in Indonesia for Promoting Sustainable Economic Growth, Mr. Hanan Nugroho, National Development Planning Agency, Indonesia
- Infrastructure Pricing and Sustainability, Mr. Harry Colebourn, Energy Australia, Australia
- Costs and Benefits of Swing Supply of Gas: An Application for the Northwestern European Gas Market, Dr. Machiel Mulder, Netherlands Bureau For Economic Policy Analysis, Netherlands

DS03 Securing Access to Energy

- The Right to Energy: One Component of Sustainable Development, Mr. Michel Clerc, Droit ?L' Energie, France
- Energy Access: Illusion or Reality for the Poor? Dr. Latsoucabe Fall, WEC Senegal Member Committee, Senegal
- A Market Based Approach to Electricity and Universal Access to Electricity: Does the First Preclude the Second? Mr. Philip Schubert, Canadian International Development Agency (CIDA), Canada
- Energy to Meet Development, Mr. Jose Maria Arraiza, ENERGIA SIN FRONTERAS (ESF) NGO, Spain
- Energy Policy Challenges and Global Agenda For Sustainable Development, Mr. Kui-Nang (Peter) Mak, United Nations Department of Economic and Social Affairs

DS04 Can the Energy Sector Attract Adequate Investment?

- Business Reporting and Communications Promoting Adequate Investment in the Energy Sector, Mr. Michael Bray, KPMG, Australia
- Financing of Power Projects in India, Mr. V. Ievakumar, Power Finance Corp. India
- Can the Energy Sector Attract Adequate Investment? Mr. Jamal Saghir, World Bank
- Ensuring Sustainability Through Adequate Return on Investment, Dr. John Sligar, Sligar and Associates, Australia
- Long-term Investments in the Electricity System, Mr. Bent Agerholm, Elkraft System, Denmark
- Market consistent value recognition: the key to future investment, Mr. Olivier Allen, Deloitte & Touche, United Kingdom
- Energy Derivative Pricing a Comparative Study, Dr. Mahmoud Hamada, Energy Australia, Australia
- Reserves and Resources Reconciliation of Terminology the United Nations Framework Classification or Energy and Mineral Resources, Mr. Sigurd Heiberg, Statoil, Norway
- Investment Frameworks and Regulatory Practice Incentives and Outcomes, Mr. George Maltabarow, EnergyAustralia, Australia

DS05 Gas to Markets: What are the Challenges?

- Bridging the Future: LNG Strategies for Changing Times, Dr. Koji Okuda, Osaka Gas Co., Japan
- Globalization Of The Gas Market: From a Regional To a Global LNG Market, Mr. Didier Sire, Gaz De France, France
- LNG Trade and Infrastructure -- Obstacles and Opportunities, Mr. David Sweet, International LNG Alliance, United States

DS06 Renewables: Old and New

- Hydropower's Role in Delivering Sustainability, Mr. Dogan Altinbilek, International Hydropower Association
- Hydro Tasmania: Renewable Energy Drivers, Action and Plans, Mr. Roger Gill, Hydro Tasmania, Australia
- The Role of Renewable Energy Sources in the Spain's Energy Policy, Mr. Jose Antonio Sanchez Quintanilla, Institute For Diversification And Saving Of Energy (IDAE), Spain



- Sizing and Location of Electrical Power Generation from Rice Husk in Thailand, Mr. Witchakorn Charusiri, Chulalongkorn University, Thailand
- Biomass Accessibility, Availability and Acceptability in Romania, Dr. Vasile Rugina, ICEMENERG SA, Romania
- Utilisation of Wastes and Biomass for Energy Production in the Czech Republic, Dr. Ing Zdenek Skala, University Of Technology Brno, Czech Republic

DS07 Investing in Energy: Sector and Country Studies

- Can the Electricity Sector Attract Adequate Investment? A European Perspective, Mr. Paul Bulteel, Union Of The Electricity Industry EURELECTRIC
- -Public Private Partnerships in the Energy Sector: The Senegalese Experience, Dr. Alioune Fall, Commission De Regulation Du Secteur De L' Electricite, Senegal
- Trinidad and Tobago An Energy Sector Investment Success Story, Mr. David Small, Ministry Of Energy and Energy Industries, Trinidad and Tobago
- The Electric Business in Venezuela: Restructuring and Investment Opportunities, Mr. Manuel Acosta, CVG EDELCA, Venezuela
- The Responsibility of Companies and the Government-Regulating Body in Relation to Investments in the Electricity Sector, Mr. Mariano Cabellos, Spanish Electricity Industry Association UNESA, Spain
- Unbundling Distribution and Supply, Mr. Chris Harrop, Bain and Co., Australia

DS08 Regional Dimensions of Gas Marketing

- Expansion of LNG Business and the New Business Challenge, Mr. Takao Arai, Tokyo Electric Power Company, Japan
- Natural Gas Markets in Brazil: Short and Long Term Challenges, Mr. Fernando Baratelli, PETROBRAS, Brazil
- Changes in the Northeast Asian Gas Market and Their Implications, Mr. Jeaseoung Choi, Korea Gas Corporation, Korea (Republic)
- Stranded Gas Western Australia Energy for the Future, Mr. David Ryan, Dept. of Industry and Resources, Australia
- Sustainable Development and Egyptian Gas Market, Mr. Mohamed Tawila, Egyptian Natural Gas Holding Company, Egypt

DS09 Driving Renewable Energy Use: Country Studies

- Contribution of the Three Gorges Project to China's Power Industry and Sustainable Regional Economy, Prof. Yaxiong Bi, China Yangtze Power Company Of China Yangtze Power, China
- Offshore Wind Power: Easing a Renewable Technology out of Adolescence, Mr. Sten T. Frandsen, Riso National Laboratory, Denmark
- Developing the Australian Renewable Energy Industry A Collaborative Process between Government and Industry, Mr. Peter Rae, Renewable and Sustainable Energy Roundtable, Australia, Australia
- Commercialising Method of Sihwa Tidal Power Plant, Mr. H.N. Kim, Korea Water Resources Corporation, Korea (Republic)
- Status Of Geothermal Energy in Iran, Dr. Soheil Porkhial, Ministry, Islamic Republic of Iran
- Success of Wind Power A Question of State and Federal Subsidies, Mr. Dieter Schwankhaus, Ernst & Young AG, Germany
- The Solar Tower: Its Potential for Large Scale Renewable Energy, Mr. Martin Thomas, PV Solar Tiles Ltd, Australia
- Technology Features of Small Hydropower (SHP) Development in China, Mr. Xiang Yang Zheng, China Southern Power Grid Ltd, China

DS10 Practical Approaches to Delivering Energy Access

- Energy Access The Positive Role of Private Capital, Mr. Robert Hart, Globeleq, United States
- Access to Electricity An Approach to Sustainable Reduction of Rural Poverty, Mr. Christian Kornevall, ABB AB, Switzerland

- Rapid Access to Modern Energy Services Using LPG, Mr. John Venn, International Liquid Petroleum Gas Association
- Energy Challenge in Developing Countries Egypt Case, Mr. Samir Ezz El Arab, WEC Egyptian National Committee, Egypt

DS11 Controlling the Environmental Impacts of Energy

- Optimised Maximum Containment The Case of Nuclear Wastes, Mr. Didier Beutier, AREVA, France
- Environmental Aspects of Gas Industry in the State of Qatar: Policy Development, Mr. Ayad Hamid Hussona, Qatar Petroleum, Qatar
- Managing the Social and Environmental Aspects of Hydropower, Mrs. Myriam Truchon, Hydro-Quebec, Canada
- Environment Preservation in Oil and Gas Upstream Activities in Algeria, Difficulties and Sustainable Development Challenge, Mr. Okba Dhina, Sonatrach, Algeria
- Inter-fuel Substitution for Resource Optimisation and Sustainable Development: Pakistan's Case Study, Mr. Hilal A. Raza, Hydrocarbon Development Institute Of Pakistan, Pakistan
- A Clean Energy future? The Role of CDM in Promoting Renewable Energy in Developing Countries, Mr. Liam Salter, WWF International
- Regulatory Policy Issues for the Long Term Storage of Carbon Dioxide Deep Underground A Western Australia Case Study, Mr. Stuart Smith, Dept. of Industry and Resources Western Australia, Australia
- The World Energy Council Asia Pacific Region Cross Border Project Research Programme, Dr. Robert Whitney, CRL Energy, New Zealand
- Pricing Energy for Sustainability: The Role of MRET, Mr. Geoff Willis, Hydro Tasmania, Australia
- Strategic Perspective of the Egyptian Electricity Sector for CDM projects, Dr. Kamel Yassin, Egyptian Electricity Holding Company, Egypt

DS12 National Champions and Global Giants: Strategies for Success

- Corporate Turnaround of Pakistan State Oil A Success Story for Contemporary Energy Businesses, Mr. Tariq Kirmani, Pakistan State Oil Company Limited, Pakistan
- Dis- and Reintegration of Distribution Businesses in the Czech Republic—A Successful Case Study from and for Central and Eastern Europe, Mr. Henning Probst, EEZ, Czech Republic
- -National Champions to Global Giants: Merger and Acquisition in Energy, Mr. Manfred Wiegand, PricewaterhouseCoopers, Germany

DS13 Ethics in Energy: Meeting Community Expectations

- Ethics in Energy: Meeting Community Expectations, Mr. Bruce Morgan, Pricewaterhouse Coopers, Australia
- Social Responsibility for the Oil & Gas Industry, Mr. Chris Morris, International Petroleum Industry Environmental Conservation Association
- How can the Oil and Gas Industry meet Indigenous Peoples Expectations to Accomplish Sustainable Development in Latin America? The Tripartite Dialogue, Mr. Miguel Moyano, APREL
- Policies and Strategies in Ethics within Electrica SA Romania, Dr. Silviu Lucian Boghiu, SC Electrica SA, Romania
- Policy into Practice The Power of Partnership, Dr. Martin Christie, BHP Billiton, United Kingdom
- Social Responsibility in Energetic Companies. A Possible Approach: The Ethical Costs Analysis, Dr. Mario Testa, Universite Degli Studi Di Salerno, Italy

DS14 Clean Coal Technology: Is it Achievable?

- Environmentally Advanced Clean Coal Plants, Mr. Carl Bozzuto, ALSTOM Power Environment USA, United States
- Clean Coal Technologies Attractive Option for Creating Customer Value in Further Power Plants, Prof. Dr. Klaus Riedle, Siemens Power Generation, Germany
- Can Coal Contribute to Sustainable Development? Mr. Roger Wicks, World Coal Institute



- Investigation of Leaching Characteristics of Ash Wastes from Thermal Power Plants in Western Turkey, Mr. Alper Baba, Canakkale Onsekiz Mart University, Turkey
- 'CO2 free' coal combustion economy and technology, Dr. Lennart Billfalk, Vattenfall, Sweden
- Application of Successes in Coal Based Generation in Developed Countries to Global CO2 Emissions Reduction, Dr. Rod Boyd, Connell Wagner PPI, Australia
- Hard Coal as a Source of Clean Energy in Poland, Dr. Lidia Gawlik, Mineral & Energy Economy Research Institute, Poland
- 250MW Air-blown IGCC Demonstration Plant in Japan and its Future Prospect, Mr. Teruo Nagai, Clean Coal Power R&D Co., Japan
- Investment in New Power Plant Capacity, Mr. Hans-Wilhelm Schiffer, RWE Power AG, Germany

DS15 Emerging Technologies for Energy Supply

- Application of Emerging Technologies for the Development of the Indian Power System, Dr. Subir Sen, Power Grid Corporation Of India Ltd., India
- Role of Innovative Technologies for Global Energy and Environment, Dr. Koji Tokimatsu, RITE (Research Institute Of Innovative Technology for the Earth), Japan
- Energy Australia's Experience with both Small Distributed PV Installations in its Distribution Network and Large Scale PV Installations, Mr. Neil Gordon, EnergyAustralia, Australia
- International Renewable Hydrogen Transmission Demonstration Facility (IRHTDF), Mr. William C. Leighty, Leighty Foundation, United States
- The Vanadium Redox Battery and Fuel Cell for Large-Scale Energy Storage, Prof. Maria Skyllas-Kazacos, University of New South Wales, Australia

DS16 Energy Strategies for Islands and Smaller Markets

- Pricing of Electricity in a Small Market. Experience of Lithuania, Mr. Vladas Paskevicius, WEC Lithuanian Member Committee, Lithuania
- MEA Island Solution, Mr. Michael J. Proffitt, Manx Electricity Authority, United Kingdom
- Sustainable Generation and Utilisation of Energy The Case of Iceland, Dr. August Valfells, National Energy Authority, Iceland
- Energy for the Small Island States: Development Finance in the Pacific, Mr. Luigi Bodda, Asian Development Bank

DS17 Performance of Generating Plant: Winning the 80 Billion Dollar Efficiency Dividend

- Measuring Performance of Renewable Generating Plants: Indicators Will Make the Task Easier, Mr. Bruno Manoha, EdF, France
- Commercial Availability: Measuring and Managing Plant Performance in the Evolving Competitive Market Environment, Mr. Vincent Micali, Eskom, South Africa
- Performance of Nuclear Generating Plant, Dr. Hans-Holger Rogner, International Atomic Energy Agency (IAEA)
- Focus on Raising International Plant Performance: Investment with High Returns, Mr. Scott Stallard, Black and Veatch, United States

DS18 New Technologies for Energy Supply: the Longer Term

- Fusion as a New Supply Option in Long-Term Energy Studies, Mr. Thomas Hamacher, Max-Planck-Institut fur Plasmaphysik, Germany
- Hydrogen: A New Possible Bridge Between Mobility and Distributed Generation (CHP), Mr. Valentino Romeri, Rasfin, Italy
- The First Steps to the Hydrogen Economy: the CSIRO Energy Transformed Flagship Program, Dr. John Wright, CSIRO, Australia
- Operational Experiences from Micro-Turbine Energy Systems, Mr. Aksel Hauge Pedersen, DONG A/S, Denmark

- World's First Offshore Wave Energy Converter-Wave Dragon-Connected to the Grid, Dr. Hans Christian Sorensen, SPOK ApS, Denmark
- -TTER, the Major Step Towards Fusion Energy for the World, Dr. Minh Quang Tran, European Fusion Development Agreement, Germany
- Innovative Hydropower Development in an Urban Environment, Mr. Gerhard Wedam, Grenzkraftwerke GmbH (GKW), Austria

DS19 Reducing GHG Emissions: How?

- CO2 Capture and Geological Storage: Constraints and Progress Forecasts, Mr. Luc de Marliave, Total, France
- Technological Options for Addressing Climate Change, Dr. Brian Flannery, ExxonMobil, United States
- The CO2 Emissions Trading Market System and its Evaluation as an Environmental Policy Focusing on the Effect of Intertemporal Trading, Dr. Kazuya Fujime, Institute Of Energy Economics, Japan
- Strategy of Reducing Carbon Dioxide Emission for Coal Utilization in Power Generation from Technology and Cost Evaluation, Mr. Keiji Makino, Ishikawajima-Harima Heavy Industries, Japan
- Utility's Challenges to Global Warming, Dr. Toru Ohkawara, Central Research Institute Of Electric Power Industry, Japan
- A Policy Option to Meet the Target of the Kyoto Protocol and the Role of the Energy Sector: the EU Emission Trading Scheme, Dr. M. Proto, Universite Degli Studi Di Salerno, Italy
- Greenhouse Gas Emission Mitigation Through Distributed Renewable Energy Systems: Sri Lanka Case Study, Prof. Priyantha Wijayatunga, University Of Moratuwa, Sri Lanka

DS20 Oil Markets: Balancing Supply and Demand

- Challenges of Nippon Oil Corporation as an Energy Solution Provider Against the Changes of the Fuel Oil Demand in Japan, Mr. Hiroji Adachi, Nippon Oil Corporation, Japan
- Potential Investment in Clean Petroleum-Based Energy Dr. Awwad A. Alharthi, Saudi Aramco, Saudi Arabia
- Efficiency of the Pricing Mechanism in the World Crude Oil Market, Mr. Giampiero, Marcello, Eni S.P.A., Italy

DS21 Finance for the Energy Sector: Will Traditional Sources Suffice?

- The Economics of the Renewables Attracting New Financing: An Analysis of Project Finance for Wind Energy, Dr. Marco Aversa, Eni S.P.A., Italy
- -Policy Options for Stabilizing Investment in Generation Capacity, Mr. Laurens De Vries, Delft University Of Technology, Netherlands
- Investment Opportunities from Energy Market Reforms: the Emergence of a New Asset Class Matched with a Growing Investor Class? Mr. Ross Israel, AMP Henderson Global Investors, Australia

DS22 Nuclear Energy: Inevitable or Irrelevant?

- Nuclear Energy: The Global Choice for the 21st Century, Mr. Scott Peterson, Nuclear Energy Institute, United States
- Extension of Nuclear Capacity: A Finnish Energy Solution in Harmony with Environment, Climate and Economics, Mr. Ami Rastas, Teollisuuden Voima Oy, Finland
- Nuclear Power and Sustainable Development, Dr. Hans-Holger Rogner, International Atomic Energy Agency (IAEA)
- Choice of Nuclear Power Investments Under Price Uncertainty: Valuing Modularity, Dr. David Proult, Commissariat ?L' Energie Atomique, France
- Romanian Nuclear Power Sector in the Context of Sustainable Development, Dr. Ioan Rotaru, SN Nuclearelectrica SA,
- Competitiveness and Sustainability: The Respective Trumps of Nuclear and Gas Power Generation, Mrs. Nicole Dellero,
- -The Specific Nuclear Energy Problems in Lithuania, Prof. Jonas Gylys, Lithuanian Nuclear Energy Association, Lithuania



- Temelin Policy Discussion, Public Acceptability, Environmental Assessment, Mr. Miroslay Holan, EEZ - Temelin NPP, Czech Republic

DS23 Rethinking Energy Regulation in Mature Economies

- Regulating Electricity in Italy: Experiences from the First Regulatory Period (2000-2003) and Lessons for the Second Regulatory Period (2004-2007), Mr. Piergiorgio Berra, Autorite Per L' energia Elettrica E II Gas, Italy
- National Energy Market Monitoring in the United States, Mr. William Hederman, Federal Energy Regulatory Commission, United States
- Lessons Learned in Ontario's Restructured Electricity Market, Mr. Howard Wetston, Ontario Energy Board, Canada
- Public Participation in Regulatory Decision-Making: Be Careful What You Wish For, Dr. Carmen Dybwad, National Energy Board, Canada
- Successful or Unsuccessful Attempt, Dr. Karoly Gerse, Hungarian Electricity Companies Ltd, Hungary
- Croatian Energy Sector Reform Results Achieved, Dr. Goran, Granic, Energy Institute 'Hrvoje Pozar', Croatia
- Rethinking Energy Regulation, Mr. David Green, UK Business Council For Sustainable Energy, United Kingdom
- How to Design a Competitive Electricity Market, Experiences from the Nordic Electricity Market and the German Polish Markets, Mr. Arne Mogren, Vattenfall, Sweden
- Can Capacity Markets Solve Security of Supply Problems in Electricity Markets? Dr. Machiel Mulder, Netherlands Bureau For Economic Policy Analysis, Netherlands

DS24 Regional Energy Issues: Challenges of Cross-Border Supply

- The development of Trans-Border Energy Supply to the south Mediterranean Coast Particularly Electricity& Natural Gas, Dr. Mohamed Awad, WEC Egyptian National Committee, Egypt
- Meeting the Challenge of Trans-Border Supply: The Role of Multilateral Instruments, Dr. Ria Kemper, Energy Charter Secretariat
- Towards Regional Energy Cooperation in Asia, Dr. Ken Koyama, Institute of Energy Economics, Japan
- Economic Comparison of a Number of Gas Supply Routes, Mr. Abdelhakim Ainouche, Sonatrach, Algeria
- Towards a Sustainable Integration of Large Energy Projects to Local Small Energy Systems, Prof. Dr. Lineu Belico Dos Reis, Universidade De Sao Paulo, Brazil
- Trans-border Power Supply: Opportunities and Challenges for Power Trading between Nepal and India, Dr. Janak Lal Karmacharya, Nepal Electricity Authority, Nepal
- The Vital Role of the Interconnected Transmission Grid, Mr. Tom Parkinson, Hydro One Inc., Canada

DS25 Sustainability Through Demand Side Management

- The WEC/ADEME Report Energy Efficiency: A Worldwide View, Mr Didier Bosseboeuf, ADEME, France
- The World is Full of Energy Managers! Mr Trevor Floyd, ESTA (Energy Systems Trade Association), United Kingdom
- Incentives for Demand Management Within the Network Weighted Average Price Cap Regulatory Framework in New South Wales, Mr Robert Smith, Energy Australia, Australia
- Increasing the Sustainability of Electricity Networks through Demand Side Management, <u>Dr David Crossley</u>, Energy Futures Australia Ptv Ltd, Australia
- Thirty Percent Less Energy Consumption in Buildings, Mr Gerhard Dell, O.Oe. Energiesparverband, Austria
- Results of DSM activities performed by utilities in Denmark, Mr Jacob Fentz, Naturgas Midt-Nord, Denmark)

DS26 Integrating Electricity Markets: What are the Issues?

- Achieving the Integration of Regional Electric Power Systems, Mr Fran?is Verneyre, EdF, France
- Infrastructural Energy Systems: Technological and Corporative Aspects in a Market Environment, Mr Nikolai Voropai, Energy Systems Institute, Russian Federation
- A Study on the Benefits and Issues of Electrical Grid Interconnections in the Indochina Region, Mr Yasuhiro Yokosawa,

Tokyo Electric Power Company, Japan

- The Transport Of Energy Through Mass Or In Form Of Electricity In View Of Sustainable Development, <u>Mr Alessandro Clerici</u>, WEC Italian Member Committee, Italy
- Energy Problems of Central-East Europe, Mr Jan Solinski, WEC Polish Member Committee, Poland
- Trading Between Countries: Improvement of the Balance Between Environment, Economy and Security or Power Play? The EU situation. Prof Adrian H.M. Verkooijen, Interfaculty Reactor Institute, Netherlands
- Long-Term Forecasting of the Latvian Energy Sector Development in View of the Integration into the Baltic and North-European Region, <u>Prof Namejs Zeltins</u>, Latvian Member Committee of WEC, Latvia

DS27 Cleaner Fossil Fuels: The Cornerstone for Human Development and Security

- Investment in Cleaner Fossil Fuel Systems (Mr Fernando Zancan, National Coal Producers Association, Brazil)

DS28 Energy Efficiency and the Demand/Supply Balance

- -The Role of Smart Power Technologies in Global Electrification, <u>Dr Steve Gehl</u>, Electric Power Research Institute, United States
- Environmental Energy Review in Iran, Mr Majid Shafie-Pour-Motlagh, ERR Project, Islamic Republic of Iran
- Commercial Availability in South Africa, Mr Brian Statham, Eskom, South Africa
- Decreasing Greenhouse Gases Emissions in Developed Countries by a Factor 4 Through Energy Efficiency, <u>Dr Francois</u> Moisan, ADEME, France
- Analysis of the External Energy Consumption in the Car Industry, Miss Georgia Plouchart, IFP, France
- Electrical Power System Sustainability through Demand Side Management and Technology Foresight, <u>Prof Peter Simunek</u>, Slovak University of Technology, Slovakia

DS29 Energy Market Reform in Developing Countries

- Energy Sector Reform in Emerging Economies The Cost of Failure, Mr Mukhtar Ahmed, Asian Development Bank
- Electricity Regulation Revisited: Objective of Regulation in Egypt, <u>Dr Mohamed El Sobki</u>, Egyptian Electric Utility And Consumer Protection, Egypt
- Rethinking Energy Regulation, Mr Juan Legisa, CEARE, Argentina
- Regulation: The Big Brother of Power Systems, Mr Eduardo Alvarez, CVG EDELCA, Venezuela
- Enhancing Electric Power Sector Reform Through Voluntary International Utility and Regulatory Partnership, <u>Mr John Hammond</u>, United States Energy Association, United States
- Consequences of Consumers' Behaviour on the Regulatory Model of the Brazilian Electrical Sector, Mr Miguel Khair, Workinvest Consultoria Empresarial Ltda., Brazil
- Long Term Trends and Measures in the Romanian Power and Heat Sector for a Country Sustainable Development in the New Market Environment, <u>Prof Aureliu Leca</u>, WEC Romanian Member Committee, Romania
- Eskom Generation Preparing for a PositiveFuture in a Liberalised Market Environment, <u>Mr Gerhard Loedolff</u>, Eskom, South Africa

DS30 Nuclear Energy: What Role in Asia?

- Nuclear Power An Option to meet the Long Term Electricity Needs of the Country, <u>Sri R. Mago</u>, Nuclear Power Corporation of India, India
- Promotion of Nuclear Energy to Maintain Sustainable Development. Mr Shigeo Suchiro, Chugoku Electric Power Co., Japan
- Nuclear Power: An Indispensable Power Resource in China, Mr M Xia, China National Nuclear Corporation, China
- Electricity Policy and Plan in India, Mr Harbans Lal Bajaj, Central Electricity Authority, India

DS31 Energy Consumption: Changing Directions

- New Energy Consumption and Supply Trends (Worldwide and Russia), Professor Alexei A Makarov, Energy Research



Institute, Russian Federation

- Abatement by Redefining the Good Life, Mr Bruce Rowse, Energy Doctor Pty Ltd, Australia
- Design and Results of a Successful Voluntary Agreement on Energy Efficiency Case Finland, <u>Ms Ulla Sirkeinen</u>, Confederation Of Finnish Industry And Employers, Finland
- Energy Chain, A New Concept in Evaluating Future Energy Conservation and Greenhouse Abatement Alternatives and Effectiveness, <u>Dr Teruhide Hamamatsu</u>, Central Research Institute Of Electric Power Industry, Japan
- Energy Consumption in Venezuela, Ms Miriam Lopez, CVG EDELCA, Venezuela
- The Role of Natural Gas Powered Thermoelectricity in Stabilising the Brazilian Electric Sector, Mr Joao Carlos Sousa de Oliveira, PETROBRAS, Brazil
- Integration of Users into the Energy Scene (Complementarity of Energy and Knowledge), <u>Dr Vesna Zupanc</u>, Ljubljana University Biotecnical Faculty, Slovenia

DS32 RD&D: The Lifeblood of Technological Solutions

- -RD & D Key To Sustainable Exploitation Of Indigenous Energy Resources Of Pakistan, <u>Dr Sakhi Bhutta</u>, National Electric Power Regulatory Authority, Pakistan
- R&D Task Force of the International Gas Union, Dr Roy Bilbe, International Gas Union
- Sustainable Development and Energy Research, Mr Juergen-Friedrich Hake, Forschungszentrum Juelich, Germany
- Performance of Miscible Gas Injection Using Horizontal Wells, Mr Noureddine Benayad, Sonatrach, Algeria
- A Sustainability Approach for Future Brazilian Petroleum Refining Process, Mr Oscar Chamberlain, PETROBRAS, Brazil
- Role of Technology in the Greenhouse Gas Emission Reduction for Finland in 2030, Mr Ilkka Savolainen, VTT (Technical Research Centre of Finland), Finland
- Energy Technologies and Sustainability: Insight from Markal/Times Bottom-up Partial Equilibrium Models, <u>Mr Gian</u> <u>Carlo Tosato</u>, Energy Technology Systems Analysis Programme, Germany

DS33 Clean Energy for Transportation

- Transport and Oil Demand in the Developing World: the Urgent Alternatives, <u>Dr Mariano Bauer</u>, Instituto Mexicano del Petroleo, Mexico
- The Role of Fuel Cells as Key Technology in the Transition to Clean Energy for Transportation, Mr Simon Fraser, Christian Doppler Laboratory For Fuel Cell Systems, Austria
- Market Penetration of Fuel Cell Vehicles in the New Zealand Transport Fleet, <u>Mr Jonathan Leaver</u>, Centre for Sustainable Energy Initiatives, New Zealand

DS34 The Energy-Water Nexus

- Hydroelectricity and the Energy-Water Nexus, Mr Stephane Cai, ALSTOM Power Environment France, France
- Electricity and Water Can Mix for Economic Security, Mr Terry Moss, Eskom, South Africa
- The Energy and Water Nexus: Services with a Good Match, Dr Arndt Neuhaus, RWE AG, Germany
- Challenges and Opportunities in Energy Trading in Central Asia Region, Mr Sohail Hasnie, Asian Development Bank
- The Contribution of Power to Water Production The Case of Algeria, Mr Karnel Sid, SonelGas, Algeria

RS01 - Review Session

- Review of Aspects of the 19th World Energy Congress (Mr Francois Ailleret, World Energy Council, France)
- Review Session: Speech of the WEC Chair (Mr Andre Caille, World Energy Council, Canada)
- Three Themes from the 2004 Congress (Mr Norberto Medeiros, WEC Brazilian Member Committee, Brazil)

FS01 - Final Session

- Global Energy Award: Acceptance Speech (<u>Dr Gerhard Ott</u>, WEC German Member Committee, Germany)