

Green Industry

for a Low-Carbon Future



VIENNA ENERGY CONFERENCE

22-24 JUNE 2009

PROGRAMME

www.viennaenergyconference.org



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Austrian
Development Cooperation



International Institute for
Applied Systems Analysis

Monday, 22 June 2009

08:00 – 09:30 Registration

09:30 – 12:00 Opening Ceremony - Großer Redoutensaal

Energy is at the heart of every economic, environmental, security and developmental issue today. The world requires clean, efficient and reliable energy services to meet its long-term needs for sustainable economic growth and development. Such energy services are essential for achieving developing countries' aspirations to alleviate poverty and increase productivity, and to enhance competitiveness and economic growth.

The objective of the Conference is to provide an opportunity for policy makers, together with private sector and civil society representatives from developing and industrialized countries, to discuss energy issues and related development challenges in the context of the current global economic crisis. In addition, the Conference will explore mechanisms for greater international cooperation and the role of the United Nations in the field of energy.

Moderator **Irene Freudenschuss-Reichl**, Director General, Austrian Development Cooperation, Ministry of Foreign Affairs, Austria

Opening Speeches **Brigitte Öppinger-Walchshofer**, Managing Director, Austrian Development Agency, Austria
Detlof von Winterfeldt, Director, IIASA
Kandeh Yumkella, Director-General, UNIDO

Message of the UN Secretary-General **Srgjan Kerim**, Special Envoy on Climate Change to the United Nations Secretary-General

Opening Keynote Address **Rajendra Pachauri**, Director General, The Energy and Resources Institute (TERI), India and Chairman, Intergovernmental Panel on Climate Change (IPCC)

10:30 – 11:00 Coffee/Tea Break

Press Conference

11:00 – 12:00 High-level panel

An Integrated Energy Agenda Beyond 2020

Energy is central to meeting the challenges facing the international community in the 21st century – poverty alleviation; economic and sustainable development; climate change; and global, environmental and food security. Responding to global energy needs in a sound and sustainable manner will contribute to addressing these pressing challenges and achieving the Millennium Development Goals (MDGs).

Policymakers therefore need to balance competing requirements of economic and social development, environmental protection, and security by designing integrated policies for jointly addressing these challenges.

The high-level panel will provide an integrated view of the challenges and consider how these might be jointly addressed.

Moderator **Todd Benjamin**, Former CNN International Financial Editor

Panelists **Suleiman Jasir Al-Herbish**, Director-General, OPEC Fund for International Development (OFID)
André Amado, Vice-Minister for Energy, Science and Technology and Cooperation Issues, Ministry of Foreign Affairs, Brazil
Corrado Clini, Director General, Global Environment International and Regional Convention, Ministry of Environment and Protection of Land and Sea, Italy
Jordy Herrera, Under-Secretary, Planning and Technological Development, Secretariat of Energy, Mexico
Manfred Konukiewicz, Deputy Director-General, Global and Sectoral Policies and Commissioner for Climate Policy, Federal Ministry of Economic Cooperation and Development, Germany
Ján Kubiš, Executive Secretary, United Nations Economic Commission for Europe (UNECE)
Mohamed Maalim Mahamud, Assistant Minister for Energy, Kenya

Monday, 22 June 2009

12:00 – 13:00 Plenary Session 1 - Großer Redoutensaal

The Global Energy Challenges of the 21st Century

The world today is experiencing three interlinked crises – food, fuel and financial – and faces a global economic slowdown with serious development implications. The current economic turmoil is likely to impact the way financial systems, governments, markets, and multilateral institutions operate in the future.

But the current crisis also presents a unique business opportunity. It has the potential to create new markets and to steer economies and financial systems towards “green growth”. We now have the technology and resources to put in motion a transition to a more secure, low-carbon energy system without undermining economic and social development.

This session will set the context of the challenges that we face today and identify opportunities to re-shape policies and re-direct investments towards a more secure and sustainable path to development.

This session is jointly coordinated by IIASA and UNIDO.

Moderator **Todd Benjamin**, Former CNN International Financial Editor

Panelists **Fatih Birol**, Chief Economist, International Energy Agency (IEA)

Ogunlade Davidson, Minister for Energy and Power, Sierra Leone

Ged Davis, Co-President, Global Energy Assessment (GEA) Council

Douglas Gardner, Deputy Assistant Administrator and Deputy Director of the Bureau for Development Policy, UNDP

Nebojsa Nakicenovic, Deputy Director, IIASA and Professor of Economics, Vienna University of Technology

Kandeh Yumkella, Director-General, UNIDO

13:00 – 14:30 Lunch

 Hosted by **Kandeh Yumkella**, Director-General, UNIDO

14:30 – 16:00 Plenary Session 1, continued - Großer Redoutensaal

The Global Energy Challenges of the 21st Century

The Global Energy Assessment (GEA) is a multi-stakeholder initiative aimed at redefining the global energy agenda. The panelists are involved directly in the GEA, which is evaluating the status of the global challenges and initiatives underway to address them; weighing the suitability and feasibility of various combinations of resources and technologies that can provide energy services in a sustainable manner; considering social issues such as gender equity and the possibility of demand-side changes and shifts in consumption patterns; and analyzing the policies and interventions that will be needed.

This session will address key issues regarding energy access, environmental impacts and energy security and provide a perspective on the particular challenges faced by emerging economies.

This session is coordinated by IIASA.

Moderator **Ged Davis**, Co-President, Global Energy Assessment (GEA) Council

Panelists **Daniel H. Bouille**, Vice-President, Institute of Energy Economics, Bariloche Foundation, Argentina

Marianne Haug, Lecturer, University of Hohenheim, Germany and Senior Research Advisor, Oxford Institute of Energy Studies, United Kingdom

Thomas B. Johansson, Professor of Energy Systems Analysis and Director, International Institute for Industrial Environmental Economics, Lund University, Sweden

Li Zheng, Professor, Department of Thermal Engineering and Director, Tsinghua BP Clean Energy Research and Education Center, Tsinghua University, PR China

Kirk Smith, Professor of Global Environmental Health, University of California, Berkeley, U.S.A.

16:00 – 16:30 Coffee/Tea break

Monday, 22 June 2009

16:30 – 18:30 Plenary Session 2 - Großer Redoutensaal

Energy Strategies to Combat Climate Change

COP-15 in Copenhagen in December of this year will address the question of a post-2012 framework for national commitments to greenhouse gas reductions. The bulk of GHG emissions are linked to fossil energy use. Energy strategies to combat climate change must reduce fossil fuel dependency. In parallel, traditional biomass energy use by the poor, constituting some 20 percent of primary energy, also needs to be replaced by modern renewable and other clean energy sources. Such strategies will require investment in new infrastructure and increased energy research and development funding.

This session will start with a presentation on the current state of play in the run-up to COP-15. This will be followed by a discussion on the tools and options for decarbonising the energy system; the challenges for countries that are seeking to develop their economies and address poverty concerns; the investments required; and the institutional mechanisms that need to be in place to make things happen.

This session is coordinated by IIASA.

Moderator **Anders Wijkman**, Member, European Parliament

Panelists **Rangan Banerjee**, Professor, Department of Energy Science and Engineering, Indian Institute of Technology (IIT), Mumbai, India

Suani T. Coelho, Professor, Brazilian Reference Center on Biomass (CENBIO), Brazil

Christoph Frei, Secretary General, World Energy Council (WEC)

Keywan Riahi, Acting Program Leader, Energy (ENE) Program, IIASA and Visiting Professor, Graz University of Technology, Austria

Lamine Thioune, Director of Energy, Ministry of Energy and Biofuels, Senegal

Diana Ürge-Vorsatz, Professor and Director, Center for Climate Change and Sustainable Energy Policy (3CSEP), Central European University, Hungary

Robert Williams, Senior Research Scientist, Princeton University, United States of America

Questions from the Audience

19:00 – 21:00 Reception – Kleiner Redoutensaal

Hosted by **Michael Spindelegger**, Foreign Minister, Austria

Tuesday, 23 June 2009

09:00 – 09:15 Summary of the Previous Day - Großer Redoutensaal

Moderator **Ged Davis**, Co-President, Global Energy Assessment (GEA) Council

09:15 – 10:45 Plenary Session 3 - Großer Redoutensaal

Towards a Sustainable, Low-carbon Path to Development

The session will address global sustainable energy governance issues. The discussion will focus particularly on the promotion of the transition to a low carbon development path at the national, regional, and international levels. The role of parliaments, international institutions and vertical funds will be discussed. Will the newly founded International Renewable Energy Agency (IRENA) be able to make a difference? What kind of difference needs to be made? This discussion will provide the latest insights.

This session is coordinated by the Austrian Development Cooperation (ADC) & the Global Forum on Sustainable Energy (GFSE).

Moderator **Irene Freudenschuss-Reichl**, Director General, Austrian Development Cooperation, Ministry of Foreign Affairs, Austria

Panelists **Arístides Fernández Zucco**, Secretary of State and President of the National Energy Commission, Dominican Republic
Christopher Flavin, President, Worldwatch Institute
Melinda L. Kimble, Senior Vice President, United Nations Foundation
Marianne Moscoso-Osterkorn, Director General, Renewable Energy & Energy Efficiency Partnership (REEEP)
Karsten Sach, Chairman, Administrative Committee of International Renewable Energy Agency (IRENA), Deputy Director General, International Cooperation, Ministry for the Environment, Germany
Anders Wijkman, Member, European Parliament

Questions from the Audience

10:45 – 11:15 Coffee/Tea break

11:15 – 12:45 Parallel Session 1 - Großer Redoutensaal

Renewable Energy

Renewable energy technologies offer solutions to pressing global issues such as energy poverty, climate change and energy security. The use of key hydropower, solar, wind, geothermal and biofuels is growing rapidly.

Global investment in renewable energy markets reached US\$142 billion in 2008. A significant share of global fiscal stimulus packages will be used in the renewable energy sector. This session will focus on the prospects for renewable energy industries and markets in 2009 and beyond. This will include discussion of the implications of fossil fuel price fluctuations and debt financing considerations. Policies for accelerated deployment of renewable energy in developing countries, including LDCs, will be discussed. Strategies for the Millennium Development Goals, energy and climate change on the international policy agenda in times of economic crisis will be investigated.

This session is coordinated by UN-Energy cluster leaders on renewable energy: Food and Agriculture Organization (FAO) and United Nations Environment Programme (UNEP).

Moderator **Mark Radka**, Chief, Energy Branch, UNEP

Panelists **Mark Davis**, Investment Director, Norfund, Norway
Samai Jai-In, Energy Specialist, MTEC and Energy Standing Committee, House of Representatives, Thailand
Hongpeng Liu, Economic Affairs Officer, Energy Security Section, Environment and Sustainable Development Division, United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
Markku Nurmi, Director General, Ministry of the Environment, Finland
Mustapha Taoumi, Director, Development Centre for Renewable Energy (CDER), Morocco

Questions from the Audience

Tuesday, 23 June 2009

11:15 – 12:45 Parallel Session 2 - Rittersaal

Energy Access for Productive Uses

Energy poverty is a staggering challenge: 1.6 billion people today lack access to electricity; mainly in rural areas in South Asia and Sub-Saharan Africa. In the absence of new policies, in 2030 1.4 billion people will remain without access to electricity and essential energy services. Access to modern energy services is necessary for creating the conditions for economic development by improving productivity and enabling local income generation.

Climate change problems cannot be solved without sustainable solutions for expanding the poor's access to energy. Can global climate change responses create opportunities for the poor's access to energy? The role of various technology and policy options will be discussed, as well as the role of multilateral cooperation and institutions.

This session is coordinated by the UN-Energy cluster leaders on energy access: United Nations Department of Economic and Social Affairs (UN-DESA) and United Nations Development Programme (UNDP).

Moderator **Minoru Takada**, Manager, Sustainable Energy Programme, UNDP

Panelists **Abeeku Brew-Hammond**, Professor, Kwame Nkrumah University of Science and Technology, Ghana
Adam Kighoma Ali Malima, Deputy Minister for Energy and Minerals, Tanzania
Harry Verhaar, Senior Director Energy & Climate Change, Philips Lighting, The Netherlands
Andrew Yager, Officer-in Charge, Water, Energy and Strategies Branch, UN DESA Division for Sustainable Development

Questions from the Audience

12:45 – 14:00 Lunch

14:00 – 15:30 Parallel Session 3 – Rittersaal

Energy Efficiency in Industry

Energy efficiency is a crucial first step towards addressing climate change, energy and competitiveness challenges simultaneously. The critical role that energy efficiency can play is well understood and recognized. The application of the best available technologies worldwide would result in a cost-efficient avoidance of about 20 to 30% of current CO₂ emissions in the industry sector. However, the rate of implementation of energy efficiency policies and the deployment of energy efficient technologies lag well behind their potential.

New policies and instruments must be deployed to counteract such a development. What steps can be taken for a significant acceleration of the uptake of industrial energy efficiency measures? What is the role of international cooperation (including in technology transfer) for reducing the energy intensity in industry? The discussion will provide new insights regarding how industry could be dealt with under the United Nations Framework Convention on Climate Change.

This session is coordinated by the UN-Energy cluster leaders on energy efficiency: International Atomic Energy Agency (IAEA) and UNIDO.

Moderator **Holger Rogner**, Section Head, Planning and Economic Studies Section, IAEA

Keynote Speech **Rob Steele**, Secretary-General, International Organization for Standardization (ISO)

Presenters **Dolf Gielen**, Unit Chief, Energy Efficiency and Policy, UNIDO
Aimee T. McKane, Senior Program Manager, Lawrence Berkeley National Laboratory, United States of America
Gianluca Sambucini, Project Manager of Global Energy Efficiency 21 and Secretary of the Committee on Sustainable Energy, Sustainable Energy Division, United Nations Economic Commission for Europe (UNECE)
Paul Waide, Senior Policy Analyst, Energy Efficiency & Environment Division, International Energy Agency

Questions from the Audience

Tuesday, 23 June 2009

14:00 – 15:30 Parallel Session 4 – Großer Redoutensaal

Towards a Renewable Energy Vision for West Africa

This session will focus on renewable energies in West Africa against the background of fossil fuel price volatility, the current financial crisis and climate change mitigation efforts. While renewable energies and energy efficiency can play an important role in the energy system of this region by 2020, this must be seen in the light of their competitiveness in relation to other alternatives.

The session will elaborate on which barriers exist and how they can be overcome. Monetary and non-monetary support is needed from developed/emerging countries and the carbon market. Can the CDM accelerate sustainable energy investments? What is the role of development cooperation in this shift to green energy systems? How can the new International Renewable Energy Agency (IRENA) support regional initiatives such as the new Regional Center for Renewable Energy and Energy Efficiency for West Africa (ERC)?

This session is coordinated by the Austrian Development Cooperation (ADC) & the Global Forum on Sustainable Energy (GFSE).

Moderator **Irene Freudenschuss-Reichl**, Director General, Austrian Development Cooperation, Ministry of Foreign Affairs, Austria

Presenter **Pradeep Monga**, Director, Energy and Climate Change Branch, UNIDO

Panelists **Abeeku Brew-Hammond**, Professor, Kwame Nkrumah University of Science and Technology, Ghana
Mahama Kappiah, Head of Energy Division for Energy Access and Renewable Energy, Economic Community of West African States (ECOWAS)
Vijay Modi, Professor of Mechanical Engineering, Columbia University, United States of America
Ogunlade Davidson, Minister of Energy and Power, Sierra Leone
Albéric Kacou, UN Resident Coordinator and UNDP Resident Representative in Nigeria
Fabio Borba, Project Developer, Private Infrastructure Development Group, InfraCo Limited, United Kingdom

Questions from the Audience

15:30 – 16:00 Coffee/Tea break

16:00 – 18:00 Plenary Session 4 - Großer Redoutensaal

Financing Energy in Times of Crisis

The global economic and financial crisis is having a major impact on infrastructure financing in general, and energy financing in particular. The downturn in global credit markets has created uncertainty regarding the availability and cost of medium to long term funding for meeting energy sector investment targets. Overall, the inability of countries to meet their energy sector investment targets will have an adverse impact on economic growth, employment generation, and access to essential infrastructure services by the poor, while also delaying the achievement of the Millennium Development Goals.

Recent surveys and assessments show that impacts differ by region and country in terms of capital availability, access and cost. Governments are receiving calls for additional capital infusion or credit support to cover energy project funding requirements. Sovereign and private lending windows of multilaterals are among the few global players left in certain primary lending markets. The panelists of this session will respond to the challenge of maintaining the transition to low carbon country growth paths.

The session is coordinated by the World Bank, a UN Energy member that administers the Energy Sector Management Assistance Program (ESMAP).

16:00 – 16:45 Part I – The Global Picture

Moderator **Amarquaye Armar**, Manager, Energy Sector Management Assistance Program (ESMAP), World Bank

Presenter **Ada Karina Izaguirre**, Infrastructure Advisory Services Group, Finance Economics and Urban Department, World Bank

Commentator **Orli Arav**, Director, Frontier Markets Fund Managers (FMFM), United Kingdom

Questions from the Audience

Tuesday, 23 June 2009

16:45 – 18:00	Part II – Snapshots from Asia and the Outlook in Latin America and Africa
Moderator	Amarquaye Armar , Manager, Energy Sector Management Assistance Program (ESMAP), The World Bank
Presenters	Dhruva Sahai , Senior Infrastructure Specialist, The World Bank Setio Anggoro Dewo , Director of Finance and Sinthya Roesly , Deputy Director of Corporate Planning and Strategy, PT PLN (Persero) (National Power Utility), Indonesia Jeremias N. Paul Jr. , Under-Secretary, Department of Finance, Philippines Dinh Quang Tri , Vice-President, EVN (Electricity of Vietnam) and Le Tuan Phong , Deputy Director General, Energy Department, Ministry of Industry and Trade, Viet Nam
Panelists	Alexis Bonnel , Head, Infrastructure and Environment Division, Agence Française de Développement Néstor Luna , Director of Planning and Projects, Latin American Energy Organization (OLADE) Farida Mazhar , Lead Financial Specialist, Finance & Guarantees Group, World Bank
<i>Questions from the Audience</i>	

18:30 – 22:00	Reception at “Heuriger” Wolff (Austrian Wine Tavern – Bus Transfer Provided) Hosted by the City of Vienna and the Global Forum on Sustainable Energy (GFSE)
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Wednesday, 24 June 2009

09:00 – 10:30 Parallel Session 5 - Rittersaal

Energy in Central and Eastern Europe

The countries of Central and Eastern Europe (CEE) are facing similar problems in securing a sustainable and secure future energy supply. Most of these countries have high potential for renewable energy and more diversified sources of energy. Against the background of the ongoing economic and financial crises, additional financing possibilities are of high importance in leveraging renewable energy sources and energy efficiency, which could in turn contribute to meeting the countries' emission reduction targets.

The objective of the panel is to gather experts from CEE countries to discuss major challenges and strategies to secure a diversified energy supply. The role of Joint Implementation, the EU-Emissions Trading System and Green Energy Investment Schemes will be discussed, as well as the position of CEE countries in the post Kyoto talks. The viewpoint of the European Commission concerning Emissions trading and Green Investment Schemes for CEE countries and the challenges of Carbon Leakage will be elaborated.

This session is coordinated by the Austrian Energy Agency (AEA) and the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

- Moderator **Herbert Lechner**, Chief Scientific Officer and Deputy Managing Director, AEA, Austria
- Introduction **Elfriede-Anna More**, Director, Department of International Environmental Affairs, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austria
- Panelists **Johannes Enzmann**, Policy Officer for Emission Trading, European Commission (EC)
- Andrey Gagarinski**, Advisor to the Director, RRC Kurchatov Institute, Russia
- Iaroslav Mikhieiev**, Chief Specialist, National Environmental Investment Agency, Ukraine
- Ivan Narkevitch**, Head, Department of International Conventions and Agreements, Ministry of Natural Resources and Environmental Protection, Belarus
- Marek Wejtko**, Adviser to the Minister of Economy, Poland

Questions from the Audience

09:00 – 10:30 Parallel Session 6 – Großer Redoutensaal

Strengthening Sustainability and Energy Security in Small Island Developing States (SIDS)

Island nations face pressing 21st century challenges that heighten the importance of moving to a more sustainable and secure energy future. Could island nations show the way towards a lower carbon energy future for the rest of the world? Could they influence large emitters by making strong commitments themselves?

Renewable energy options could replace a significant amount of fuel in island nations, but barriers remain, while unstable financial markets may starve investments in renewable or emerging technologies such as ocean thermal energy conversion. The panel will discuss what could be done to spur investments in renewable and emerging technologies. Emerging energy infrastructures will also be discussed. Given impacts on forests, arable lands, fisheries and/or coral reefs, are such solutions sustainable?

This session is coordinated by the Austrian Development Cooperation (ADC) & the International Union for Conservation of Nature (IUCN).

- Moderator **Solomone Fifita**, Manager of the Pacific Islands Greenhouse Gas Abatement through Renewable Energy Programme (PIGGAREP), Secretariat of the Pacific Regional Environment Programme (SPREP)
- Introduction **Albert Binger**, Advisor to the Caribbean Community Climate Change Centre and the Alliance of Small Island States (AOSIS)
- Paul Leonard Fairbairn**, Manager of the Community Lifelines Programme, Secretariat of the Pacific Islands Applied Geoscience Commission (SOPAC)
- Panelists **Juan-Marco Alvarez**, Director of Economics and Environmental Governance, Head of Business and Biodiversity Programme, IUCN
- Susan McDade**, Resident Representative, United Nations Development Programme (UNDP) and Resident Coordinator, United Nations, Cuba
- Tom Roper**, Board Member of Climate Institute, Project Leader of the Global Sustainable Energy Islands Initiative (GSEII), former Minister for Planning and Environment, Australia
- Elizabeth Thompson**, Senator of Parliament, former Minister for Energy and Environment, Barbados
- Joseph Williams**, Programme Manager, Energy Programme, Caribbean Community (CARICOM) Secretariat

Questions from the Audience

10:30 – 10:45 Coffee/Tea break

Wednesday, 24 June 2009

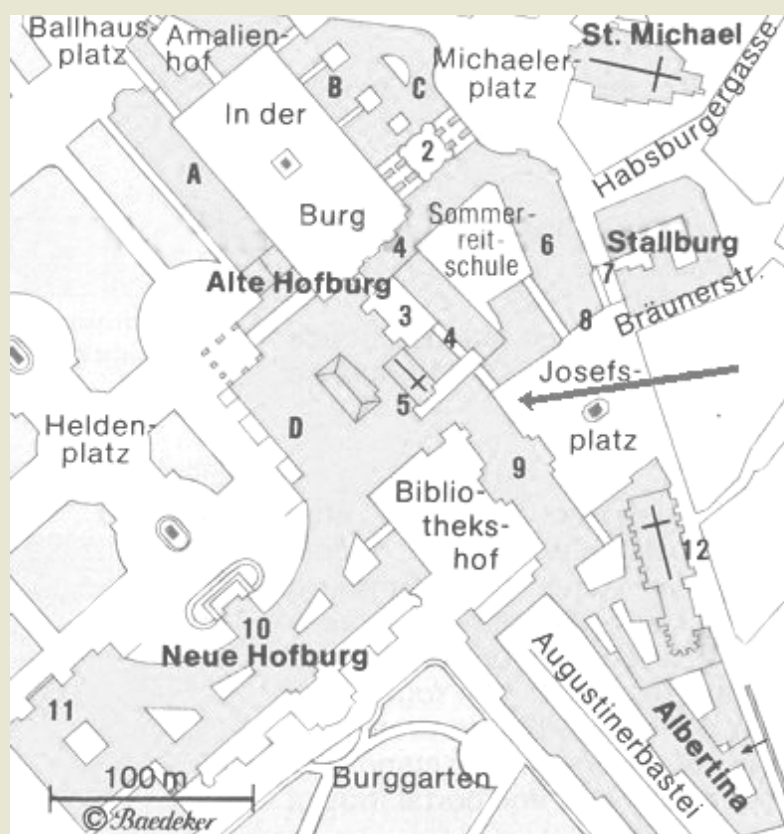
10:45 – 12:15	Closing Plenary – Großer Redoutensaal
Major Messages and Findings	
This last session will provide a summary of the main discussions, conclusions and messages of the Conference.	
Moderator	Ged Davis , Co-President, Global Energy Assessment (GEA) Council
Keynote Speech	Nikolaus Berlakovich , Federal Minister of Agriculture, Forestry, Environment and Water Management, Austria
Closing Remarks	Irene Freudenschuss-Reichl , Director General, Austrian Development Cooperation, Ministry of Foreign Affairs, Austria Thomas Stelzer , Assistant Secretary-General for Policy Coordination and Inter-Agency Affairs, United Nations Department of Economic and Social Affairs Nebojsa Nakicenovic , Deputy Director, IIASA and Professor of Economics, Vienna University of Technology Kandeh Yumkella , Director-General, UNIDO
12:15	Closure
PM	Field Trip Excursion to Hydropower Plant Freudenau (Bus Transfer Provided)

This is a provisional agenda indicative of both confirmed and invited speakers for the purposes of review. The agenda is subject to change at the discretion of the organizers.

Conference Venue:

Hofburg (Imperial Palace)

Entrance: Josefsplatz, 1010, Vienna



Hofburg at Vienna

- A Leopoldine range
- B Imperial Chancellery range
- C Michaeler range
- D Ceremonial Apartments range

- 1 Burg Gate, with Monument to Heroes
- 2 Entrance to State Apartments and Silberkammer
- 3 Schweizerhof (Entrance to Treasury)
- 4 Treasury
- 5 Castle Chapel
- 6 Winter Riding School
- 7 Entrance to Lippizaner Stables and New Gallery
- 8 Entrance to Spanish Riding School
- 9 National Library
- 10 Ephesos Museum
- 11 Museum of Ethnology
- 12 Augustinian Church

Co-sponsors:



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