



renewables 2004 was opened by Jürgen Trittin, Germany's Minister for the Environment, Nature Conservation and Nuclear Safety, and Heidemarie Wieczorek-Zeul, Germany's Minister for Economic Cooperation and Development



RENEWABLES HIGHLIGHTS: TUESDAY, 1 JUNE 2004

Renewables 2004 opened on Tuesday, 1 June, in Bonn, Germany. In the morning, participants heard opening statements, followed by a Multi-Stakeholder Dialogue (MSD) addressing the value and opportunities of renewable energy, and policy frameworks and regulatory certainty. In the afternoon, the MSD discussed financing and capacity building. Numerous side events were held throughout the day, including the Global Village Energy Partnership (GVEP) event, and the Science Forum on research, development and education. The Sustainable Energy Finance event also took place.

PLENARY SESSIONS

OPENING SESSION

Jürgen Trittin, Germany's Minister for the Environment, Nature Conservation and Nuclear Safety, opened the Conference, calling on *renewables 2004* to send a signal for global environmental protection and "globally fair" development. He stressed the need to "get down to business" to make the global increase of renewable energy a reality, underscoring that "the age of renewables has begun."

Heidemarie Wieczorek-Zeul, Germany's Minister for Economic Cooperation and Development, said the Conference outcomes would provide the strategic framework for a global sustainable energy future, and stressed the importance of North-South energy partnerships.

Ernst Ulrich von Weizsäcker, Germany's Parliamentary Committee on Environment and Nuclear Safety, underscored the role of renewable energy as a realistic choice for meeting the Millennium Development Goals (MDGs), and noted the need to address both renewables and demand-side energy efficiency.

Bärbel Dieckmann, Mayor of Bonn, outlined the important role of local authorities and municipalities in implementing renewable energy programmes and projects. Peer Steinbrück, Minister President of the Federal State of North Rhine-Westphalia, said renewable energy provides a real opportunity to achieve sustainable development. Abigail Gay Zuasula, Greenpeace Solar Generation, called for clear and binding targets, projects with concrete action programmes and timeframes, and a shift of subsidies from fossil fuels and nuclear power to renewable energy. Yongamele Mbapa,

Youth Energy Summit, presented the outcome of the Youth Energy Summit, which includes a call for a 100% renewable energy future.

Rajendra Pachauri, The Energy and Resources Institute, India, said renewable energy is no longer a fringe interest, and stressed the need to break down barriers to implementation. He called for collaborative research efforts between North and South to make renewable energy technology more appropriate to the needs of developing countries.

Chakib Khelil, Algeria's Minister of Energy and Mining, described changes to national legislation and the introduction of several new projects in Algeria to promote cleaner energy sources.

MULTI-STAKEHOLDER DIALOGUE

The MSD was co-chaired by Heidemarie Wieczorek-Zeul and Jürgen Trittin, and facilitated by David Hales from the Stakeholder Forum for Our Common Future, UK. Each session included statements from stakeholder groups, followed by a dialogue.

VALUE AND OPPORTUNITIES OF RENEWABLE ENERGY - POLICY FRAMEWORKS AND REGULATORY CERTAINTY

The importance, value and contribution of renewable energy: NGOs called on the Johannesburg Renewable Energy Coalition to establish targets and mandatory policies to promote renewable energy. They stressed the need to ensure that global temperatures do not increase by more than 2°C due to climate change, as this would put millions of people at risk. ACTORS IN DEVELOPMENT AND POVERTY ALLEVIATION highlighted the energy priorities of the poor, including clean and efficient cooking technologies, and ener-

gy for income-generating and social purposes. The RENEWABLE ENERGY MANUFACTURERS AND SUPPLIERS said increases in fossil fuel prices due to environmental costs and the depletion of resources will make renewable technologies more cost effective. He emphasized the role of renewable energy sources in providing energy to remote areas.

Discussion: MOROCCO said renewable energy could play a major role in rural development. TURKEY described its national legislation to promote renewable energy sources. DJIBOUTI argued that, as oil prices had risen to over US\$40 a barrel, renewable energy was now a matter of survival for some countries. Supported by UGANDA, he called for an international fund to finance renewable energy projects in developing countries, and for the involvement of the private sector to facilitate the transfer of renewable energy technologies. The SCIENTIFIC AND TECHNOLOGICAL COMMUNITY said research and development in renewable energy technologies could provide multiple benefits, and suggested that current investments in nuclear fusion be diverted to renewable energy. NEPAL described the role of renewable technologies in countries with topographical constraints in using grid-based energy technologies. CONSUMERS stressed the need to build trust in renewable technologies. WOMEN said the conference should also consider energy efficiency and conservation, and recognize women as the main actors in energy management in the domestic sector.

Promoting renewable energy - Policy frameworks and regulatory certainty: NGOs called on governments to adopt clear and differentiated targets to give credibility to their commitment to renewables. Stressing the continued significance of the contribution of fossil fuels and nuclear energy to total energy production, BUSINESS AND INDUSTRY opposed global standards but said that the business community is committed to ensuring universal access to clean and sustainable energy for all by 2030. LOCAL AND REGIONAL AUTHORITIES called on governments to replace fossil fuel subsidies with targets for increasing access to renewable energy, highlighted the role of local authorities in promoting renewables through procurement, and advocated subsidiarity. RENEWABLE ENERGY MANUFACTURERS AND SUPPLIERS called for legally binding targets, awareness raising, and increased support from IFIs.

Discussion: SAUDI ARABIA stressed the need for a balance between different energy sources and, with IRAN, called for clean fossil fuel technologies. BELGIUM said the relatively high cost of renewable energy adversely affects demand. ICELAND urged a focus on the development of renewable energy fuels for transport. WOMEN called for gender mainstreaming in all aspects of renewable energy policies. CONSUMERS called on governments to provide information to consumers and develop technical standards for renewable energy products and services. The SCIENTIFIC AND TECHNOLOGICAL COMMUNITY stressed that current energy markets are distorted and noted the need for increased support along the whole innovation chain for renewable technologies. NIGERIA supported the development of local technologies and ACTORS IN DEVELOPMENT AND POVERTY ALLEVIATION identified benefits from the local manufacturing of renewable technologies. BUSINESS AND INDUSTRY said renewable energies can effectively fuel decentralized electricity generation for rural populations and lead to local empowerment. TRADE UNIONS stressed the need to harness synergies between renewable energies

and employment generation. The UN ECONOMIC COMMISSION FOR AFRICA identified biomass as the primary energy source in Africa and urged modernization of the sector. MALI highlighted deforestation resulting from the domestic use of wood fuels. RWANDA stressed the need for energy to fuel development and BURUNDI called for increased cooperation to promote access to renewable energy technologies. The US highlighted the benefits of energy efficiency.

PROMOTING RENEWABLE ENERGY - DELIVERING FINANCE AND CAPACITY FOR THE FUTURE

Promoting renewable energy - Financing the future: LOCAL AND REGIONAL AUTHORITIES stressed the need to ensure access to credit and competitive interest rates, and to lower the unit cost of renewables. NGOs called for a level playing field and clear targets to increase financing for renewable energy in developing countries by development banks, export credit agencies and international financial institutions (IFIs). The FINANCE SECTOR, speaking for Business and Industry, underscored the need for a long-term strategy for attracting capital to the renewable energy sector. ACTORS IN DEVELOPMENT AND POVERTY ALLEVIATION urged a focus on the finance of low-cost small-scale and primarily non-electrical renewable technologies.

Discussion: DENMARK said target setting was a prerequisite for the successful expansion of renewable energy and GERMANY outlined its renewable energy target. WOMEN called for financial mechanisms to improve the social and economic status of women, including credit arrangements, targeted short-term subsidies and programmes to enhance women's entrepreneurial skills. BANGLADESH stressed the need to make renewable energy affordable and accessible to the rural poor. BUSINESS AND INDUSTRY said IFIs should harmonize the work of their private and public sector departments. JORDAN called for large-scale renewable energy power plants and increased regional cooperation. RENEWABLE ENERGY MANUFACTURERS AND SUPPLIERS stressed the importance of removing administrative barriers and harmful subsidies, and supported the call for an international renewable energy agency. TRADE UNIONS underscored the need to make financial provisions to ease the socioeconomic problems facing workers currently employed in conventional energy sectors.



Facilitator, David Hales, Stakeholder Forum for Our Common Future, leads delegates through the MSD

A representative from BUSINESS AND INDUSTRY highlighted the Clean Energy Alliance between 12 US States to promote renewable energy over the next ten years. ETHIOPIA said hydropower should not be excluded from the list of renewable options. NGOs highlighted the recommendations of the World Commission on Dams, and said a key priority was to ensure a “just transition” to renewable energy.

The SCIENTIFIC AND TECHNOLOGICAL COMMUNITY called on the OECD to increase research spending on renewable energy. The UN FOOD AND AGRICULTURE ORGANIZATION called for the integration of agriculture and energy policies. SOLOMON ISLANDS said renewable energy presented a stepping stone for the future economic prosperity of countries that spend a major share of their national budget on energy. ACTORS IN DEVELOPMENT AND POVERTY ALLEVIATION called for subsidies to aid the maturation of clean technologies. PAKISTAN called for the creation of a renewable energy development bank and promotion agency.

Promoting renewable energy - Capacity building: CONSUMERS underlined the need to provide consumers and professionals with information and advice. TRADE UNIONS said renewable projects should include funds to train workers, involve civil society, and build capacity at the grassroots level.

Discussion: MAURITIUS proposed a protocol or convention on renewable energy. NEW ZEALAND urged the use of carbon charges to internalize the cost of energy systems. GUATEMALA called for capacity building among decision makers. ACTORS IN DEVELOPMENT AND POVERTY ALLEVIATION stressed the need to build on existing capacity and to improve access and increase the purchasing power of people in poverty. TRADE UNIONS urged the development of advanced technical skills. INDONESIA stressed that, without strong financial support, renewable energy cannot compete with other energy sources. RENEWABLE ENERGY MANUFACTURERS called for a strong signal of support for renewables at the international level. The SCIENTIFIC AND TECHNOLOGICAL COMMUNITY drew attention to the importance of human capacity building for researchers, producers and consumers of renewable energy. WOMEN called for enabling policies to ensure their greater participation in decision making. BUSINESS AND INDUSTRY supported setting targets at the local rather than global level. In order to give renewable energy a “fair” chance, NGOs called for the external costs of all energy sources to be internalized. He called for targets, support systems and “long, loud and legal” frameworks. ACTORS IN DEVELOPMENT AND POVERTY ALLEVIATION favored small-scale renewable energy projects that generate employment and stimulate enterprise at the local level.

CONSUMERS supported the establishment of an international institution to promote the supply and demand of renewable energies. LOCAL AUTHORITIES called for decentralized governance and TRADE UNIONS urged participants to address social concerns. KENYA called for efforts to increase the diffusion of geothermal, solar and wind energy technologies. TUNISIA and NIGER called for enhanced international technical cooperation and capacity building. UN ECONOMIC COMMISSION FOR LATIN AMERICA AND CARIBBEAN stressed the need for electrification as well as job creation.

SIDE EVENTS

Global Village Energy Partnership

Presented by the Global Village Energy Partnership (GVEP)

Judy Siegel, GVEP, explained that GVEP was launched at the WSSD and seeks to increase energy access to over 50,000 communities in 30 countries. Noting that 1.7 billion people lack access to energy, she stressed that energy is critical to achieve the MDGs.

Kamal Rajal, UNDP, discussed capacity development initiatives in Asia. He outlined the Asia-Pacific Regional Energy Programme for Poverty Reduction (2004-2006), which aims to enhance equitable access to appropriate, reliable and affordable energy services to reduce poverty and contribute to achieving the MDGs.

Roberto Gonzalez Diaz-Duran, Guatemala’s Minister of Energy and Mines, discussed his country’s National Action Plan and planning process to alleviate energy poverty. He outlined Guatemala’s programme with GVEP, which aims to, *inter alia*, bridge the gap between investors, entrepreneurs and energy users in the design, installation and operation of replicable energy projects. Minister Diaz-Duran stressed that the ultimate benefit of such programmes is not the provision of energy itself, but the poverty reduction achieved.

George Mpombo, Zambia’s Minister of Energy and Water Development, noted that 80% of people in Zambia lack access to electricity. Emphasizing that “actions speak louder than words,” he called on developed countries to “unlock” their financial and technical resources to assist African countries in developing and investing in renewables.

Ma Shenghong, Renewable Energy Development Center, China, described the Brightness and Township Electrification Programme in China, which aims to accelerate the decentralized electrification of remote rural areas. Outlining lessons learned and noting that rural populations have difficulty financing renewables, he underscored the importance of government grants.

Links to more information:

<http://www.gvep.org>

Contact:

Judy Siegel: judy@energyandsecurity.com

Science Forum: Research, Development and Education Organized by the Solar Energy Research Association (ForschungsVerbund Sonnenenergie - FVS)

The Science Forum, which was held at the Wissenschaftszentrum in Bonn, consisted of a series of sessions focused on research, development and education in the context of renewable energies. The Forum was attended by more than 100 experts from governments, UN agencies, international organizations, and academic institutions.

Jürgen Schmid, FVS/Institute for Solar Energy Supply Technology, opened the day-long event, urging participants to use it to launch a process that would encourage North-South cooperation on research and education efforts.

After the opening speeches, participants focused on issues of

research and development, followed in the afternoon by sessions on education and training networks.

On research and development, Joachim Luther, Fraunhofer Institute for Solar Energy Systems, argued that a worldwide sustainable energy system was achievable through a rapid increase in the use of renewables. However, he suggested that such a transformation would require a global approach involving sustained efforts to reduce the cost of renewable energy, combined with ongoing political, institutional and financial commitment. He proposed the establishment of an International Science Panel on Renewable Energy, which could operate along the lines of the Intergovernmental Panel on Climate Change.

Other speakers assessed the specific needs of both industrialized and developing countries, as well as the challenges involved in integrating renewables within energy distribution systems.

During the sessions on education networks, several presenters discussed the UN Educational, Scientific and Cultural Organization's Global Renewable Energy Education and Training (UNESCO-GREET) programme. Noting significant gaps in education, training, and public awareness raising, Osman Benchikh, UNESCO, observed that these elements are often missing from renewable energy projects. He highlighted GREET's support for collaboration between existing training programmes, the launching of regional and global networks for information exchange, and other activities to promote training and education.

Other speakers tackled a range of education-related issues, including measures to integrate renewable energy into society in the US, European postgraduate courses in renewable energy, the activities of the International Institute for Renewable Energy in Asia, and a proposal for an internet-based information exchange and education system.

As well as the main sessions, a number of side events were also held on issues such as the role of research and academic institutions, the use of renewable energy for heating and cooling, Germany's renewables activities, and capacity building in developing countries.

The Science Forum concluded with an announcement by Jürgen Schmid of a German initiative to launch an internet-based information exchange and education system.

Link to more information:

<http://www.fv-sonnenenergie.de/Termine/index.html>
<http://www.ise-solar.info>
<http://www.resource-solutions.org>

Contact:

Jürgen Schmid: jschmid@iset.uni-kassel.de
 Joachim Luther: joachim.luther@ise.fraunhofer.de
 Osman Benchikh: o.benchikh@unesco.org

In parallel breakout sessions, participants discussed risk management and venture capital for the renewable energy sector. The group on risk management identified several investment barriers, including lack of expertise and know-how about sustainable energy in the financial sector, high initial investment costs and a risk/reward ratio not perceived as attractive. Several speakers called for a change of thinking in the financial sector and for new public-private partnerships to share risks related to sustainable energy projects.

The group on venture capital heard presentations on the process to obtain venture capital for start-up companies, an investor's perspective on a venture capital deal, and impediments to venture capital.

The 5th BASE International Investment Forum for Sustainable Energy convened in the afternoon. Ernst Ulrich von Weizsäcker encouraged business participants to consider strong recommendations for *renewables 2004*. Entrepreneurs from five continents presented 12 sustainable energy projects that require investments. These include various renewable energy technologies, energy storage and conversion equipment. These projects, which range in size, require total investments of more than € 600 million.

In a separate session on consumer lending and micro-finance, participants heard presentations and discussed the integration of energy services into existing consumer lending products and micro-finance activities, interest rates for micro-credit, and operational efficiency of different micro-finance models.



Gianni Operto, Sustainable Asset Management, considers new investment opportunities.

Link to more information:

http://www.sefi.unep.org/sef_bonn
<http://www.uneptie.org/energy>
<http://www.thecarbontrust.co.uk>
<http://www.energy-base.org>
<http://www.gvpep.org>

Contact:

Monique Barbut: monique.barbut@unep.fr
 Virginia Sonntag-O'Brien: base@energy-base.org

RELATED EVENTS

Sustainable Energy Finance

Presented by UNEP and the Basel Agency for Sustainable Energy (BASE)

Monique Barbut, UNEP, briefed participants on the Sustainable Energy Finance Initiative (SEFI), which provides financiers with tools and networks to drive financial innovations that improve the environmental performance of the energy mix.

THINGS TO LOOK FOR TODAY

PLENARY SESSION: The Plenary Session will take place from 9:00 am-12:30pm to consider policies for renewable market development. It will reconvene from 2:00-5:30 pm to address financing options for renewable energy, as well as strengthening capacities, research and technology development, and institutions.

SIDE EVENTS: Side events and other related events will convene throughout the day. See the daily conference journal for more information.