



WORLD CLIMATE & ENERGY EVENT

Program

Renewables for a Sustainable Energy Supply!

February 15-17, 2005 • Hotel Glória • Rio de Janeiro



WORLD CLIMATE & ENERGY EVENT



LAREF

2005

LATIN AMERICA RENEWABLE
ENERGY FAIR



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Location

All events will take place at:

Hotel Glória

Rua do Russel, 632 - Glória Rio de Janeiro - RJ

Tel: ++55 - (21) 2555-7272

Fax: ++55 - (21) 2555-7282

<http://www.hotelgloriario.com.br>

Our website enables online-booking of hotel rooms and tours at a special conference rate (www.rio5.com).

Press Information

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Edited by: Stefan C.W. Krauter, Johannes M. Kissel, Felix L. Kaup

Chairman's Greetings

Welcome to Latin America and the wonderful city of Rio de Janeiro !

For the third time since 2002 the *RIO - World Climate & Energy Event* takes place, encouraging the global use of renewable energies and supporting the substitution of fossil-based fuels such as coal, oil and gas, with their immanent pollution, climate-harming effects, unfair distribution and control by a few governments and companies, and - last but not least - their limited perspective.

The idea of *RIO 5* is not to encompass electrical energy generation only, but the whole human habitat, including, city structure, transportation, education, lifestyle and vision.

We received more than 120 publications from 27 countries from all continents, 70 made it into the program, and representatives from 14 countries confirmed their attendance, covering all areas from solar, wind and biomass power generation, water supply, architecture, transportation, carbon trading, legislation and RE-education. The program contains also brilliant examples for effective financing, which make renewable energies affordable for everyone, encouraging an independent, responsible and sustainable living - also viable for future generations.

Four workshops held by the Solar and Wind Energy Assessment Group (SWERA) of the United Nations Environmental Program (UNEP), the University of Stuttgart, Isofotón and myclimate.com will escort the event.

Annexed to the congress is our *Latin America Renewable Energy Fair (LAREF 2005)* - with 20 exhibitors from Brazil, USA, China, Spain Barbados, Italy and Germany - demonstrating latest products and services for effective renewable energy implementation and energy saving.

A public workshop at the end of the week in Fortaleza in the Northeast of Brazil will display the "El Dorado" for renewable energy applications and conclude the event.

We thank all scientists, sponsors, NGOs, exhibitors and participants for their valuable contributions to make this event possible. We hope you will attend fascinating lectures, get motivating contacts, and find some time to enjoy one of the most beautiful cities of the world.



Prof. Dr.-Ing. Stefan C.W. Krauter
General Chairman *RIO 5*

All talks and speeches will be translated simultaneously from English into Portuguese and vice versa - headphones are available at the entrance of the auditorium

9.00 Opening

Stefan Krauter (Germany/Brazil)
Chairman RIO 5, Coordinator WCRE Latin America

Javier Gorbeña Yllera (Spain)
Director of Commerce, Isofotón

Aloísio Vasconcelos (Brazil)
Director of special projects and technological & industrial development, Eletrobrás

Fernando Gabeira (Brazil), requested
Member of the Brazilian Parliament

9.45 Marina Silva (Brazil), requested
Minister of Environment
Dilma Vana Rousseff (Brazil), requested
Minister of Energy and Mines
Prospective for renewable energies in Brazil

10.15 Hermann Scheer (Germany)
Alternative Nobel Prize Winner, General chairman WCRE, President EUROSOLAR
Latin America's role in a solar world economy

11.00 Coffee Break

11.20 Christopher Flavin (USA)
President Worldwatch Institute, Washington
Why a transformation of the global energy economy may be imminent

11.50 Angelina Galiteva (USA)
Chairman Committee WCRE, CES Green LA
The need for an International Renewable Energy Agency

12.10 Mechthild Rothe (EU)
Member of European Parliament – Committee of Industry, Research and Energy
European activities to promote renewable energy and energy efficiency

- 12.30** Holger Rogall (Germany)
Berlin School of Economics, Chairperson of the Society for Sustainability, Member of the Berlin Parliament
Climate protection as a sphere of action towards a sustainable economy
- 12.50** Sérgio Dialetachi (Brazil)
Greenpeace Brazil
“Energia Positiva”- Campaign for Renewable Energies
- 13.10** Kevin Costner (USA)
Oscar® winner
- to be announced -
- 13.30** **Lunch**
- 14.45** Peter Landsberg (UK)
University of Southampton
The history and perspectives for solar electricity
- 15.00** Martin Green (Australia)
World Leader in Photovoltaic Research, University of New South Wales, Sydney
State-of-the-Art of solar cell development
- 15.20** Javier Gorbeña Yllera (Spain)
Isofotón, General Director of Commerce
Present and future of photovoltaic solar energy
- 15.40** Renata Leite Falcão (Brazil)
Directorate of Engineering, Eletrobrás
Sources of alternative energies: The vision of Eletrobrás
- 16.00** Carlos Minc (Brazil)
Deputy of the State of Rio de Janeiro
Activities of the State of Rio de Janeiro in renewable energies and climate protection
- 16.20** Everaldo Feitosa (Brazil)
Director Brazilian Wind Energy Center, Vice President of the World Wind Energy Center
Wind power development in Brazil
- 16.40** **Coffee Break**

17.00 Round Table (free of charge)

organized by Heinrich-Böll Foundation

**Progress and impediments of Renewable Energy
Development in Brazil**

Lucia Ortiz
GT energia

Luiz Pinguelli Rosa, requested
*Executive Secretary of Fórum Brasileiro de Mudanças
Climáticas, Federal University of Rio de Janeiro, COPPE*

Célio Bermann
*Post-graduation programme of Energy IEE, Federal
University of São Paulo - USP*

Thomas Fatheuer
Fundação Heinrich Böll, Managing Director

Laura Porto
*Head of Renewable Energy Department, Ministry of Mines
& Energy - MME*

19.00 End of 1st day

Energy efficiency & Energy saving

- 8.30** José Mauro Márquez (U.K.), João Manaus Corrêa (Brazil)
University of the West of England, Bristol
Modeling and operational analysis of hybrid electric buses vs. diesel buses – A case study of São Paulo City
- 8.45** Andreas Lietzmann, D. Fröhler (Germany), K.-D. Lietzmann (Brazil/Germany)
eab technology group, Freiberg
Practical experience and dimensioning in the operation of decentralized energy supply stations
- 9.00** Christoph Saniter, Rolf Hanitsch (Germany)
Technical University Berlin, Institute of Energy and Automation Technology
Efficiency improvements of electrical drives - contribute to improvement of environmental conditions
- 9.15** Klaus Köln (Germany)
UfE GmbH, Rostock
Distributed intelligence in power networks
- 9.30** Martha Macedo de Lima Barata (Brazil)
Federal University of Rio de Janeiro, PPE-COPPE-UFRJ
Energy efficiency as a means for improving environmental quality - the case of small companies
- 9.45** Pablo García Arabéhéty (Argentina)
Argentinean Wind Energy Association (AAEE) / University of Buenos Aires (UBA)
On efficiency
- 10.00** Tomaz Nunes Cavalcante Neto, Leila Cristina Jovina da Silveira, Adson Bezerra Moreira et al. (Brazil)
Federal University of Ceará – UFC, Dept. of Electric Engineering
Energy efficiency and analysis. Renewable energies in the Federal University of Ceará
- 10.15** Simone Ferrari (Italy)
Politecnico di Milano, Dept. Building & Environment, Science & Technology
Improving energy savings in residential hotels: "Comfort on demand" control strategies with efficient retrofitting measures

10.30 S. Srinivasa Murthy, P. V. Jaya Prakasha Reddy
(India)
*Indian Institute of Technology Madras, Refrigeration &
Air-conditioning Laboratory*
**Studies on Ejector-Absorption hybrid refrigeration
systems with new working fluid pairs**

10.45 Coffee break

*Policy Implementation, Financing,
Carbon Emission Trading - CDM*

11.05 Carl W. Seitz (Germany)
Globu Tech – International
**Generation of Win-Win-relations in the international
energy market**

11.20 Abdoulaye Ba (Senegal)
FURG/DCMB
**Implementation of local initiated rural electrification
project (E.R.I.L.) in north Senegal**

11.35 Ewerson Duarte da Costa (Brazil)
Ewerson Duarte da Costa – Escritório de Advocacia
**The Kyoto - Protocol: A slowdown for an unrestricted
development. A chance for sustainable development.**

11.50 Rodrigo Cunha Trindade (Brazil), requested
Agência Energia- Projetos e Consultoria em Energia Solar
**Solar Thermal Heating – a reliable and economically
viable option for the substitution for conventional
energy sources**

12.05 Patrick Bürgi, R. Heuberger, F. Thomas
(Switzerland)
myclimate.com
**Quality standards for Micro Scale Carbon Offset
Projects**

12.20 Osvaldo Stella Martins, David Freire da Costa
(Brazil)
University of São Paulo, IEE
**Gallery forest recovery & carbon credits – a financial
analysis**

- 12.35** Martha Macedo de Lima Barata, Norma do Nascimento Baptista, Emilio Lèbre La Rovere et al. (Brazil)
Federal University of Rio de Janeiro, PPE-COPPE
Participation of small & medium sized industries in the carbon market – opportunities and barriers: the case of the red clay ceramics industry
- 12.50** Paulo C. M. Carvalho, Andrea P. B. Moraes, Rita Maria B. Marques et al. (Brazil)
Federal University of Ceará – UFC, Dept. of Electric Engineering
The PROINFA contribution for CO₂ emission reduction
- 13.05** **Lunch**
- 14.20** Eric Martinot (USA)
Worldwatch Institute, Washington
Renewable energy markets: Global overview and lessons from developing countries
- 14.35** Ivan Petroff (New Zealand)
Massey University, Albany
First results from New Zealand's national energy efficiency and conservation strategy
- 14.50** Johannes Kissel, Stefan C.W. Krauter (Germany/Brazil)
Technical University Berlin & Federal University of Rio de Janeiro (UFRJ), Programa de Planejamento Energético
Adaptations of support schemes for RE to countries with an unstable macroeconomic situation
- 15.05** Stefan Bundscherer, Ulrike Krüger, Nadine Bethge (Germany)
RE – Next (Renewable Energies- Network for Export and Technology)
Perspectives through strategic co-operations for small and medium sized enterprises (SME) realized by RE-Next.

Education, Capacity building

- 15.20** David Wortmann (Germany)
World Council for Renewable Energy (WCER), German Bundestag
Open University for Renewable Energy (OPURE)

- 15.35** Stefan Krauter (Germany/Brazil)
World Council for Renewable Energy (WCRE), ISES (BoD), State University of Ceará (UECE), Technical University of Berlin (TUB)
Necessities for an International University for Renewable Energy (IURE)
- 15.50** Walmeran José Trindade Jr. (Brazil)
Centro Federal de Educação Tecnológica da Paraíba – CEFET-PB, Coordenação de Eletrotécnica - COELT
Alternative energy education: Federal technical college of Paraíba; CEFET-PB
- 16.05** Richard Corkish, Stuart R. Wenham, Alistair B. Sproul et al. (Australia)
Centre for Photovoltaic Engineering, University of New South Wales
Education and research at the centre for PV Engineering, University of New South Wales
- 16.20** **Coffee Break**
- 16.40** Erico Spinadel (Argentina)
Argentinean Wind Energy Association (AAEE) - National Technological University (UTN) - FASTA University
Capacity building in wind power
- 16.55** Nandini Gandhi, Daksha Vaja, Hema Patel et al. (India)
Gujarat Energy Development Agency
Empowered children for power conservation: An initiative to establish teams of Bal Urja Rakshak Dals (children as energy guards) in the state of Gujarat
- 17.10** Norma Rodriguez Blandon (Nicaragua), Elizabeth Ferreira da Silva (Brazil)
World Council for Renewable Energies – Latin America
Sustainable house construction kit for youth education
- 17.25** Flavio Cotrim Pinheiro, Simone G. El Khouri Miraglia, Luciano Gualberto et al. (Brazil/USA)
US National Renewable Energy Laboratory
Support to local and regional air quality public policy - results of the first phase of the integrated environmental strategies (IES) project in São Paulo

- 17.40** Lucia Muriel (Germany), Osmel Cabrera Gorrin (Cuba)
International Team for Capacity Building InTCaB
South - South - Network for sustainable rural development in Caribbean region, a contribution to sustainable development

Wind Power

- 17.55** Maurizio Cellura (Italy)
University of Palermo, Department of Energy and Environmental Researches (DREAM).
Energy and environmental analysis of an Italian wind farm
- 18.10** Ronaldo Alves (Brazil)
AlterCoop - Energias
Innovations in the wind energy sector in Brazil
- 18.25** Christoph Saniter, D. Schulz, R. Hanitsch et al. (Germany)
Technical University Berlin, Institute of Energy and Automation Technology
Causes for harmonics and interharmonics in wind energy converters
- 18.40** Paulo C. M. Carvalho, L. G. Coelho Junior (Brazil)
Federal University of Ceará, DEE
Analysis of desalination plants connected to wind generator and the possibility of use in the Brazilian Northeast.
- 18.55** **End of presentations of 2nd day**
- 20.30** **RIO 5 - Banquet**

Sustainable Architecture/ Urbanism & Transportation

- 8.30** Guillermo Honles (USA)
Solar Architect, Los Angeles
Design+Technology = Architecture
- 8.45** Jörg Spangenberg (Brazil)
University of Applied Sciences Cologne, ITT – Institute of Technologies in the Tropics
Simulation of urban climate in tropical metropolis’ – A case study
- 9.00** Silke A. Krawietz (Italy)
University of Rome La Sapienza, Faculty of Architecture, Valle Giulia
The influence of climate on architecture -synthesis of ecology, technology and architecture for the current millennium
- 9.15** Marco Schmidt (Germany)
TU Berlin, Institute of Landscape Architecture and Environmental Planning
Energy and water, a decentralized approach to an integrated sustainable urban development
- 9.30** Ole von Uexkull (France)
United Nations Environmental Programme (UNEP), Paris
Renewable energy for water supply and treatment - experiences, cost and competitiveness
- 9.45** Paola Caputo (Italy)
Politecnico di Milano, Dept. Building Environment Science & Technology (BEST)
Energy self-sufficiency with renewable sources. Solutions and technologic systems for the rehabilitation of an old rural building complex in Sicily (Italy)
- 10.00** Marc-Andree Wolf, M. Fischer, M. Faltenbacher *et al.* (Germany)
University of Stuttgart, IKP-Dept. LCE
Quantifying the life cycle sustainability of renewable energy carriers

- 10.15** Cecilia Makishi, Michael Faltenbacher, Matthias Fischer et al. (Brazil/Germany)
University of Stuttgart, Department Life Cycle Engineering (LCE)
LCA of fuel cell technology for urban transportation system in Europe and Australia
- 10.30** Aniruddhe Mukerjee (India)
Madhya Pradesh Lake Conservation Authority
GHG emission reduction due to construction of the linking road of the Bhoj wetland project

10.45 Coffee Break

Biomass Energy

- 11.00** Suani Teixeira Coelho, Sílvia Stortini González Velázquez, Maria B.C. Monteiro et al. (Brazil)
USP – University of São Paulo, CENBIO – Brazilian Reference Center on Biomass
Energy generation through Biomass in the Amazonian region
- 11.15** João Norberto Noschang Neto (Brazil)
CENPES - Petrobrás
Biodiesel in Brazil
- 11.30** José Nuno Carranca (Brazil)
MAN B&W do Brasil
Green power from diesel engines burning biological oils and recycled fat
- 11.45** Gilberto C. Bandeira de Melo (Brazil), Artur Torres Filho
Federal University of Minas Gerais, Departamento de Engenharia Sanitária e Ambiental – DESA
Environmental and energy performance: Evaluation of an alternative biomass fuel obtained from wood residues generated in a metropolitan area
- 12.00** Suani Teixeira Coelho (Brazil), David Freire da Costa, S.M.S.G. Velázquez et al.
USP – University of São Paulo, CENBIO – Brazilian Reference Center on Biomass
The use of produced biogas sewage for energy generation and electric energy production in gas microturbines using alternative fuel (biogas)

- 12.15** Piero Lunghi (Italy)
University of Perugia, Industrial Engineering Department
Comparison between innovative and traditional technologies for landfill gas energy conversion
- 12.30** R.G. Pereira, G.A.Romeiro, R. N. Damasceno *et al.* (Brazil)
UFF, Departamento de Engenharia Mecânica, Programa de Pós-Graduação em Engenharia Mecânica
Characterization and application of oil and coal obtained through low temperature conversion process applied to biomass and residues
- 12.45** Marc-Andre Wolf, L.-P. Barthel, Peter Eyerer *et al.* (Germany)
University of Stuttgart, IKP-Dept. LCE
Social aspects for quantifying advantages of Renewable Energy carriers
- 13.00** Igor Sutlovic, Rajka Budin, Alka Mihelić-Bogdanic *et al.* (Croatia)
Faculty of Chemical Engineering and Technology, University of Zagreb
Energy efficient brick production
- 13.15** **Lunch**
- Photovoltaic & Solar Thermal Energy Systems*
- 14.30** Paulo C. M. Carvalho, João M.A. Vígira, Francisco Canafistula *et al.* (Brazil)
Federal University of Ceará, DEE
Photovoltaic powered data acquisition systems in semi-arid areas
- 14.45** Marco Antonio Galdino, Hamilton Moss de Souza (Brazil)
CEPEL – Centro de Pesquisas de Energia Elétrica CRESEB (The Brazilian Solar and Wind Energy Reference Center)
The solar house of CRESEB: Seven years of success
- 15.00** Anthony O. Pereira, Avi Bar, Tom Thompson (USA)
altPOWER, Inc., New York
Existing avenues to encourage building integrated photovoltaic installations in New York City

- 15.15** Ricardo Rüther, Paulo Knob, Wilson Reguse et al.
(Brazil)
*Federal University of Santa Catarina, LABSOLAR –
Laboratório de Energia Solar*
The potential of grid-connected photovoltaics in Brazil
- 15.30** S.Srinivasa Murthy, N. Gopalakrishnan, B.V.S.S.S.
Prasad (India)
*Indian Institute of Technology Madras, Department of
Mechanical Engineering*
Natural convection in stratified hot water storage tanks
- 15.45** Mauro José de Aguiar Bichara (Brazil)
*Universidade Federal do Rio de Janeiro – Centro de
Tecnologia*
Default module solar destillator
- 16.00** **Coffee Break**
- 16.15** Osiris Ashton Vital, Maria Olivia de Souza (Brazil)
University of Salvador – UNIFACS
**The market of heating water with solar energy for
popular domestic consumption in Sergipe**
- 16.30** Tomaz Arakaki, José Morais Silva, Zaqueu Ernesto
da Silva et al. (Brazil)
*Federal University of Paraíba, Laboratório de Energia
Solar, Centro de Tecnologia*
**A multiple effect parallel feeding desalination plant
using solar energy heating**
- 16.45** Cecilia Makishi (Germany), Niels Warburg, Maiya
Shibasaki et al. (Brazil)
*University of Stuttgart, Department Life Cycle Engineering
(LCE)*
**Thin-film solar cells – sustainability decision support in
parallel to recycling process development**
- 17.00** José Bione, N. Fraidenraich, O.C. Vilela (Brazil)
Federal University of Pernambuco – UFPE
*Grupo de Pesquisas em Fontes Alternativas de Energia –
Departamento de Energia Nuclear*
**Technical and economical analysis of a PV water
pumping system with V-Trough concentrator, using for
irrigation of grape in the northeast of Brazil**

- 17.15** Lana Ludmila Pinheiro Santana (Brazil), Klemens Schwarzer (Germany), Maria Eugênia Vieira da Silva (Brazil)
Federal University of Ceará, Laboratório de Energia Solar e Gás Natural
Comparative study of two solar cookers: Parabolic reflector and flat plate indirect heating
- 17.30** **End of 3rd day**

Workshops (free of charge)

Solar and Wind Energy Resource Assessment – SWERA

16th of February 2005, 8.30 - 13.00 hours, Room A

The workshop will focus on the activities of SWERA (Solar and Wind Energy Resource Assessment) in Brazil. SWERA is an UNEP project, with co-financing from GEF, created to promote the utilization of the renewable forms of solar and wind energy by removing barriers created by the lack of information and by supporting more informed decision-making, science-and-technology based policy that will ultimately increase investors confidence and interest in renewable energy. Its goal is to survey the solar and wind energy resources in various parts of the world and to evaluate the feasibility of using these resources as renewable energy forms for the sustained development of those areas.

SWERA is also aimed at transforming the ability of target countries to assess the technical, economic, and environmental potential for large-scale investments in solar and wind energy facilities. Brazil is one of the 14 target countries where SWERA activities are taking place. This workshop will present the current status of SWERA activities in Brazil with the aim of disseminating its major objectives and products.

Talks:

8.30 Tom Hamlin (UNEP)

Presentation of the Solar and Wind Energy Resource Assessment project - SWERA

9.00 Enio Bueno Pereira (CPTEC/INPE)

SWERA-Brazil objective and status

9.30 Samuel Abreu/Fernando Ramos (LABSOLAR/INPE)

Solar energy resource assessment in Brazil

10.00 Alexandre Pereira (CBEE)

Review on wind energy assessment in Brazil

10.30 Coffee break

11.00 Antônio Leite Sá (CEPEL)

The Brazilian Wind Atlas

11.30 Sylvio Mantelly (CPTEC/INPE)

Ground data acquisition during SWERA - the SONDA project

12.00 Jorge Lima (CEPEL)

Renewable energy policies in Brazil

12.30 Dave Renne (NREL)
SWERA-Brazil toolkit

13.00 Tom Hamlin (UNEP)
Closing remarks

ALL DAY: Posters and thematic maps presentations

Dr. Enio B. Pereira

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12630-000, Cachoeira Paulista, SP, Brasil
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FAX: +55 (12) 3945-6666/3101-2835
Cel: +55 (12) 9132-9100

Life Cycle Assessment (LCA) & GaBi 4 Training

16th of February 2005, 14.00 - 18.00 h, Room A

Contents of the workshop will be:

Brief introduction to LCA

Applications of LCA within industry and research

Demonstration of use of software "GaBi 4" for LCA

Hands-on experience on GaBi 4

Participation will be for free and a registration in the Rio 5 Conference is not required. The workshop will be performed by LCA experts from the PE Europe GmbH and the IKP, University of Stuttgart. Workshop language will be English but the instructors speak Spanish and Portuguese as well.

For the hands-on experience participants should bring their own laptop and have a demo version of GaBi 4 already installed (please see www.gabi-software.com).

People being interested in participating in the workshop or having additional questions please contact us till 31st January, 2005:

Cecilia Makishi IKP, University of Stuttgart

Tel.: ++49 711 48 99 99 27

Fax: ++49 711 48 99 99 11

Email: makishi@ikp2.uni-stuttgart.de

Harald Florin

PE Europe GmbH

Tel.: ++49 711 34 18 17

Fax: ++49 711 34 18 17 25

Email: h.florin@pe-europe.com

Workshop on PV-Technology

17th of February 2005, 8.30 – 13.00 hours, Room A

Workshop will be held by Isofotón, Spain.

Contents and course will be announced on short notice.

For latest information, please visit our website www.rio5.com

Financing of Renewable Energy and Energy Efficiency Projects through CDM

17th of February 2005, 14.00 – 17.00 hours, Room A

The workshop

"Financing of Renewable Energy and Energy Efficiency Projects through the Clean Development Mechanism (CDM) - How does it work? Opportunities and Chances for Project Developers."

will be held by Patrick Bürgi, myclimate.com, Switzerland.

Patrick Bürgi

myclimate

Bluntschlisteig 1, CH-8027 Zürich

Phone: ++41 1 281 22 20

Fax: ++41 1 281 22 44

patrick.buergi@myclimate.org

www.myclimate.org

For latest information, please visit our website www.rio5.com

LAREF 2005

The *Latin America Renewable Energy Fair (LAREF 2005)* takes place together with the *RIO 5 – Congress* in the Hotel Glória. Companies and organizations from seven countries will present their products and services to the public. The visit of **LAREF 2005** is **free of charge**.



Exhibitor List of LAREF 2005

- ❖ Isofotón, S.A. (PV), Spain
- ❖ Eletrobrás (PV, Wind, Biomass, conv. energies), Brazil
- ❖ Heinrich Boell Foundation (RE-policy), Germany
- ❖ CRESESB/CEPEL (PV, Wind, Biomass), Brazil
- ❖ PE Europe GmbH (LCA), Germany
- ❖ Brasil Energia (Press), Brazil
- ❖ Rio Solar Ltda. (PV, Solar Thermal), Brazil
- ❖ Suntech Power (PV), China
- ❖ Q-Cells (PV), Germany
- ❖ Eolica s.r.l. (Wind), Italy
- ❖ AlterCoop (Wind), Brazil
- ❖ Energia Pura (Wind, PV), Brazil
- ❖ AHK Rio (Business), Brazil-Germany
- ❖ Ufe GmbH (PV, Wind, Energy Management), Germany
- ❖ AET (PV, Wind), USA
- ❖ Solar Dynamics Ltd (Solar Thermal, PV), Barbados
- ❖ Gamesa (Wind), Spain
- ❖ Wobben Windpower (Wind), Brazil
- ❖ MAN B&W (Biodiesel), Brazil/Germany
- ❖ Greenpeace (RE-policy), Brazil (to be confirmed)
- ❖ Heliodinâmica (PV), Brazil (to be confirmed)

Registration form (please fax to: ++55 – (21) 2518-2220)

Registration fees for international participants:

Full Participants* ☐ € 390,-

Students** ☐ € 170,-

Registration fees for national participants:

Full Participants* ☐ R\$ 950,-

Members of WCRE & ISES Brazil* ☐ R\$ 750,-

Reduced Price for Professors* ☐ R\$ 525,-

One – day fee* ☐ R\$ 450,-

Students** ☐ R\$ 250,-

* registration for the congress includes the book of proceedings, coffee breaks and participation at receptions and banquet

** student registration requires a valid student ID-card

Workshops, round tables and the visit of the Latin America Renewable Energy Fair (*LAREF 2005*) are free of charge.

Name: _____

Address: _____

City: _____

State: _____

Country: _____

Organization: _____

Phone: _____

Fax: _____

E-mail: _____

Other useful information

Time

In February the time difference is + 2 hours to GMT (due to daylight saving one hour less than the adequate time zone).

Arrival

Rio de Janeiro has two major airports:

- The international airport Galeão (GIG) is located 15 km from Gloria where *RIO 5* is located. This airport has two terminals and is served by major airlines, most of them with daily services: Aerolinas Argentinas, American Airlines, Air France, Alitalia, British Airways, Continental, LAN Chile, Lufthansa, Iberia, TAM, TAP, Varig. A taxi ride with a common (yellow) taxi will cost you about 30.00 R\$, with an executive taxi (blue, white or red) 40.00-50.00 R\$, by executive bus (every 30 minutes) 6.00 R\$. Travel time is about 35 minutes.
- The national airport Santos Dumont (SDU) is mainly occupied with flights from and to São Paulo (every 15-20 minutes), and is located 3 km from the conference location (bus 3.00 R\$, taxi 7.00 R\$, 5 minutes).

Visa

A tourist visa for up to 3 months is issued at the border control (no charge) for many countries: Andorra, Argentina, Austria, Bahamas, Barbados, Belgium, Bolivia, Chile, Colombia, Costa Rica, Denmark, Ecuador, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Morocco, Namibia, Netherlands, Norway, Paraguay, Peru, Philippines, Portugal, San Marino, Slovenia, South Africa, Spain, Suriname, Sweden, Switzerland, Trinidad and Tobago, Uruguay, UK, Vatican and Venezuela. A passport with a validity of at least 6 months is required.

- A visa is required for U.S. citizens. Tourist visas are processed within two business days and are obtained via the nearest Brazilian Consulate. One passport-size photograph, along with the round-trip ticket and a duly completed and signed application form are required to apply for your visa, valid for 90 days (for tourists) or 10 days (transit). <http://www.consulatebrazil.org/visas.htm>

Please note that these rules are subject to change without previous information. We advise to check the up dated information with your local tour agency or with the Airline.

Currency

The local currency is the Real (R\$), divided into 100 Centavos. One Real (1.00 R\$) is currently equivalent to 0.28 Euro or 0.36 US\$. Banking hours are from 10-16 hours, Monday to Friday. Exchange offices usually offer better exchange rates than banks, rates are negotiable. Credit cards (Visa, Master Card, Amex) are accepted in most hotels, restaurants and stores. There are also ATM serving Visa direct, Cirrus and Amex. Tip: Take lots of small R\$ notes with you - change might be difficult outside of the hotel.

Phone

Brazil's international dialing code is 55, Rio de Janeiro's city code is 21. To carry phone calls to another city (DDD) you dial 0, then the operator (e.g. 23 or 31 or 15 or 21), city code (e.g. Sao Paulo 11) finally the phone number. For International calls carry (DDI) you dial 00, then the operator (e.g. 23, see above), county code (e.g. Germany 49), city code (e.g. Berlin 30) finally the phone number.

Cellular phone

GSM works in Brazil, you can either consider international roaming (often expensive) or purchase a pre-paid chip (e.g. Oi, TIM, claro) for 35 R\$ in shops or in the shopping centers (requires 15 min for registration).

Accommodation

Hotel Gloria has a sufficient quantity of rooms available, our website enables online-booking for a special conference rate (www.rio5.com). Other hotels are not far from the conference location at Copacabana (6 km) and Ipanema (10 km). Prices range from 40 Euro to 200 Euro.

Dress code

During the congress and for the banquet dress code is relatively formal, also for the visits: at least long trousers and shoes are required (Brazilian research institutions don't let men in with shorts or sandals), dress very light for the beach.

Health

For the city of Rio de Janeiro no vaccination is required. It is recommended to drink bottled water and use very good sun protection and a hat. The excursion to Fortaleza does not require any additional health care. Only for excursions to the Amazon region Malaria prevention and yellow fever vaccination are recommended.

Security

Within the last five years the security has improved. The conference location is safe. Nevertheless it is recommended to leave major values in the hotel safe if you leave the hotel or the congress. Avoid the beach during night hours.

Electricity

Voltage in the state of Rio de Janeiro is 115 V AC, 60 Hz. Plugs are American and/or Central European style.

Useful phone numbers

Taxi: Yellow Coop 3895-9933

Tourist police: 2511-5767

Phone numbers during conference

Stefan Krauter (+55-21) 8823 1963

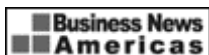
Johannes Kissel (+55-21) 9814 3031



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