

**INTERNATIONAL SEMINAR ON BIOMASS, BIOGAS AND
ENERGY EFFICIENCY**

REGIONAL LEADERS SUMMIT

São Paulo, 3-5th April, 2013

(Bandeirantes Palace, Salão dos Pratos)

3 april

10.00-10.30

OPENING SESSION

- Governor Geraldo Alckmin (tbc)
- José Aníbal, Secretary of Energy
- Milton Flávio Lautenschläger, Undersecretary of Renewable Energies
- Rodrigo Tavares, Head of Office of Foreign Affairs

(in the occasion, Governor Geraldo Alckmin will sign a decree establishing the São Paulo biofuels program and will present the Solar Atlas of São Paulo)

10.30-13h30

ROUNDTABLE ON BIOMASS

PAPER 1

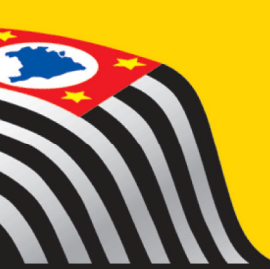
BAVARIA — Energy Research in Bavaria: Why International Cooperation Matters
Florence Gauzy Krieger, *Bayerische Forschungsallianz (BayFOR)*

PAPER 2

SÃO PAULO — Sugarcane Bioelectricity in São Paulo: Market Potential and Technological Stage
Zilmar José de Souza (*UNICA*), Marcelo Arantes Severi (*TGM*)

PAPER 3

QUÉBEC — Integration of HQP Training in second and third generation biofuels' R&D work
Jean Michel Lavoie, *Université de Sherbrooke*



Assessoria Especial para Assuntos Internacionais

PAPER 4

WESTERN CAPE – Cogeneration of Ethanol from the Hemicellulose fraction of Bagasse in an Integrated Setup

Johan Gorgens, *Stellenbosch University*

DISCUSSANT and MODERATOR

– Gláucia Souza (USP/BIOEN)

14.00-15.00

LUNCH

(*Bandeirantes Palace, Salão dos Conselhos*)

15h00-18h00

ROUNDTABLE ON BIOGAS

PAPER 1

SÃO PAULO – Brazilian Bio-Fuels Production Scenario (Biogas, Biomethane and Biosyngas)

Gerhard Ett^{a,d}, Fernando Landgraf^{a,b}, Silas Derenzo^a, Abraham Sin Yu^{a,b}, Lineu Belico dos Reis^b, Alexandre Mazzone^{c,d}, Heloisa Burkhardt Antonoff^a, Ligia Antunes A. Alves de Souza^a *Institute for Technological Research – IPT*,^b *University of São Paulo*,^c *Centro Paula Souza Piracicaba - FATEC*,^d *Fundação Armando Alvares Penteado – FAAP*

PAPER 2

BAVARIA – Substitute Natural Gas From Biomass – Decentralised Gasification and Methanation

Marius Dillig, Jürgen Karl, *Universität Erlangen-Nürnberg*

PAPER 3

SÃO PAULO – Thermodynamic, Thermo-economic and Economic Analysis of Integration of Straw Gasification and/or Stillage Biodigestion in the Cogeneration System of a Sugar-Alcohol Factory

Ricardo Alan Verdú Ramos, Cassio Roberto Macedo Maia, Emanuel Rocha Woiski, Newton Luiz Dias Filho, Rodnei Passolongo, *NUPLEN - Núcleo de Planejamento Energético, Geração e Cogeração de Energia, UNESP*

PAPER 4

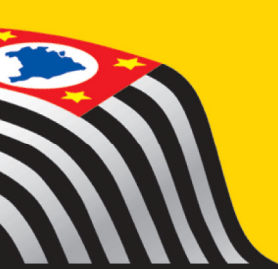
SHANDONG – The Biogas Industry Development in China

Li Aimin, *Energy-saving office of Shandong Provincial Economic & Information Industry Commission*

PAPER 5

SHANDONG – Vermicelli Production Enterprises Discussions of Comprehensive Utilization For Wastewater Production Biogas

Zhang Yuhong, *Yantai Municipal Energy-saving Office*



DISCUSSANT and MODERATOR

– Luis Augusto Barbosa Cortez (FAPESP)

4 april

10h00-13h00

ROUNDTABLE 1 ON ENERGY EFFICIENCY AND CONSERVATION

PAPER 1

SÃO PAULO – Vehicle Technology Development – Focus On Energy Efficiency.

Jose Goldemberg and Oswaldo Lucon, *University of São Paulo and Secretariat of Environment*

PAPER 2

SÃO PAULO – The Future of Energy Consumption in Vehicle Technology

Márcio Schettino, *Secretaria Municipal de Transportes de São Paulo*

PAPER 3

SHANDONG – The Application of the Energy Saving Technology of Refrigerating System in a Food Processing and Refrigerating Factory

Jiao Yuxue, *Yantai Moon Group Co., Ltd*

DISCUSSANT and MODERATOR

– Ubirajara Sampaio de Campos (SEE)

13.30-14.30

LUNCH

(Bandeirantes Palace, Salão dos Conselhos)

15h00-18h00

ROUNDTABLE 2 ON ENERGY EFFICIENCY AND CONSERVATION

PAPER 1

SÃO PAULO – Energy Efficiency in Brazil and in the State of São Paulo - Electricity

Sergio Valdir Bajay (*UNICAMP/NIPE*) and **Sidnei Amano** (*WEG Motors*)



PAPER 2

SÃO PAULO – Electrical Vehicles for Urban Transportation – Past and Future

Guilherme A. Melo, Moacyr A. G. de Brito, Prof. Carlos A. Canesin *UNESP – Universidade Estadual Paulista and LEP – Power Electronics Laboratory*

DISCUSSANT and MODERATOR

– Sidnei Martini (POLI/USP)

5 april

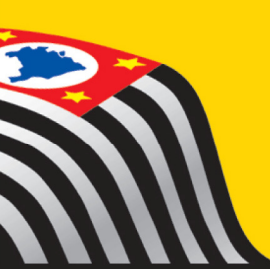
10h00-18h00

Each participant is invited to take a sight visit of his/her choice:

1. **ENERGY EFFICIENCY IN ELECTRICITY.** Visit to the Metro/Underground of São Paulo. Full day meetings and visits on the efficiency program adopted by the Metro.
2. **ENERGY EFFICIENCY IN FUELS.** Visit to the Metropolitan Company of Urban Transport (EMTU) and to its hydrogen bus laboratory.
3. **ENERGY EFFICIENCY IN FUELS.** Visit to the Environmental Company of São Paulo (CETESB) and to its vehicle emission laboratory
4. **ENERGY EFFICIENCY IN FUELS.** Visit to Eletra Bus (Metra), a hybrid (diesel/electricity/ethanol) bus factory in São Paulo.
5. **BIOGAS.** Visit to Usina Ester, a large industrial complex that produces biogas from sugarcane bagasse (130 km from São Paulo)

Other confirmed participants (paper to be submitted):

UPPER AUSTRIA – Prof. Dr. Friedrich Roithmayr, *Johannes Kepler University*



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GUIDELINES

- All papers need to be submitted in English (Word format) up until March 29th. All participants will access all papers before arriving in São Paulo
- Papers need to clearly state its relevance and contribution to public policy design.
- Presentation equipment is available
- Each presentation should last up until 20 minutes.
- At the end of each roundtable, there will be a discussant and questions by the audience.
- Presentation shall be done in English, Portuguese or Mandarin (interpretation is available)

SPONSORS



ARSESP

The Regulatory Agency for Sanitation and Energy of the State of São Paulo regulates, controls, supervises and oversees basic sanitation services and piped gas distribution, which are a State responsibility, as well as electricity and municipal sanitation services whose regulation has been delegated to the State by the relevant bodies.

Created in 2007, Arsesp incorporates the experience in the area of regulation of energy and gas services from the Commission for Energy Public Services (Comissão de Serviços Públicos de Energia - CSPE), from which it stems, to the process of providing universal access to and improving the quality of sanitation services in the State of São Paulo. The Agency, encompasses different sectors and is formed as a special-regime autarchy, with administrative, budgetary, financial and decision-making autonomy.



METRÔ

The São Paulo Company of the Metropolitan – Metrô was formed on April 24th, 1968. Today, the São Paulo Metro has four lines in operation, 65.3 kilometers of network, 58 stations, 150 trains and transported, in the year 2012, 1,098 billion passengers.

Every day, the metro network transports about 4.5 million passengers. In August 2012, the São Paulo Metrô outdid the number of 22 billion passengers since its inauguration in 1974, standing out worldwide by its results in production and quality of passenger's public rail transport.

OMNIS

OMNIS Biotechnology S.A. is an innovative biotechnology company based in São Paulo, Brazil. Its focus is the biological transformation of solid and liquid residues from agro-industrial processes into value-added subproducts such as bioenergy, biomethane, biofertilizers.

OMNIS has successfully developed over the last three years a new source of clean, renewable energy from vinasse, a by-product of ethanol production. Our large-scale Demonstration Plant was financed with honors from local development agencies (FINEP and ANEEL), certified ISO 9001:2008, and has yielded results 20% above expectations. We have obtained support from strategic AAA-partners, including General Electric and CPFL, the largest private electrical company in Brazil. Our vinasse-to-energy process is 100% biological, induced and controlled. Our dominance of the behavior of bacteria optimizes and stabilizes biogas extraction and energy generation. Our team has compiled an unparalleled database and precise simulation tools calibrating biogas production from vinasse in anaerobic digesters.

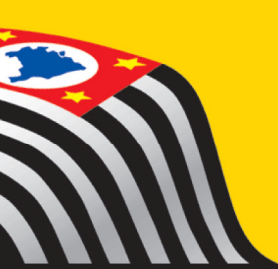
OMNIS is currently applying similar concepts and know-how in other sectors. The niches of our interest are those that produce large quantities of liquid and solid wastes with a high organic content, consisting mainly of complex molecules (proteins, fats, starches, organic acids, cellulose, etc.).

DESENVOLVE SP

Desenvolve SP is a public financial institution owned by the State of São Paulo, with the specific purpose of supporting the sustainable development of small and medium companies and the municipal governments within the state.

With loan periods of up to ten years and more competitive interest rates, our financing programs provide incentives for social, environmental and technological development, while creating employment and income opportunities for the general population.

Our priority is to finance investments in productive projects associated with industry, commerce, services and agribusiness.



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Therefore we offer financing opportunities to small and medium enterprises located in the State of São Paulo.

FUNDAÇÃO ENERGIA E SANEAMENTO

The Fundação Energia e Saneamento is a nonprofit organization, whose mission is to preserve, research and disseminate the historic and cultural heritage of energy and sanitation through actions of education and culture, regarding history, science, technology and environment.

Founded in 1998, the Fundação has one of the most important archives in the country and is an important source for the history of urbanization and industrialization. Located in seven cities in the State of São Paulo, including its capital, the Fundação Energia e Saneamento operates throughout Brazil, developing cultural and educational projects that contribute to the democratization of access to historic and cultural heritage of energy and sanitation, in order to strengthen citizenship and responsible use of natural resources.

