Regional Workshop on the Best Practices for Large Hydropower Development

November 22-23, 2011 – Tucuruí, Brazil

Daily Agenda

November 22, 2011

Introduction

The Regional Energy Integration Commission of Latin America (CIER), and the Global Sustainable Electricity Partnership (Global Partnership), an international organisation composed of the leading electricity companies from around the world, are pleased to invite you to participate in a high-level workshop initiative aimed at fostering dialogue on the best practices for large hydropower development, which will be held in Tucuruí, Brazil, on November 22-23, 2011.

The initiative is designed to stimulate discussions and share perspectives on the best practices for the successful development of sustainable large hydropower facilities in today's social, economic and global environment. The objective is to create awareness about the role and benefits of sustainable large hydropower projects in mitigating climate change, in ensuring security of supply, in enhancing social and environmental mitigation measures, and in stimulating local regional development. Local and international experts will present the best practices in Latin America and worldwide in large hydropower development, based on their experience, to guarantee the development and protection of the environment, address the mitigation measures acceptable by the population, increase transparency and accountability vis-à-vis local stakeholders, and promote sustainable regional development.

The workshop will consist of interactive panel discussions moderated by international large hydropower project developers and experts, who will address and work in collaboration with attending high-level government, power sector and investment community representatives from the region.
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Tucuruí Hydropower Plant Cultural Center

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November 21, 2011

19:00-22:00 Welcome Cocktail

November 22, 2011

08:00-08:30 Transport from the hotel to the conference center

08:30-09:00 Participant registration

09:00-09:15 Opening and Introduction

- Welcome remarks by:
  o Mr. Josias Matos de Araujo, President of Eletronorte
  o Mr. Carlos Mascimo, General Manager, Comisión Técnico Mixta de Salto Grande – Representative of CIER
  o Ms. Martine Provost, Executive Director, Global Sustainable Electricity Partnership

09:15-12:30 The Development of Large Hydropower Projects: Opportunities, Challenges and Relevant Issues

- This panel is broken into two groups
Panellists will give their perspective on different issues regarding large hydropower project development.

Specific issues to be addressed (but not limited to):
- Decision making procedures: what to take into consideration
- Climate change mitigation, Sustainability and environmental protection, Flood/water management
- Benefits for/impacts on the population
- Technology choice and development (engineering issues)
- Regional economic development, Industry clusters
- Public image and communications outreach actions

Moderator: Mr. Luiz Augusto Figueira, Superintendent of Internal Affairs, Eletrobras

09:15-10:30

Group 1 Speakers
- Mr. Alessandro Palmieri, Lead Dam Specialist, Quality and Assurance Unit, World Bank
- Mr. Marcio Drummond, Superintendence for Generation, Eletrobras (Brasil)
- Mr. Olivier Salignat, Environmental and Social Expert, EDF Hydro Engineering Center, Electricité de France

Q&A session and discussion with participants

10:30-11:00 Coffee Break

11:00-12:30

Group 2 Speakers
- Ms. Valeria Rodriguez, Legal Adviser in International Affairs, Vice Ministry of Mine and Energy, Paraguay
- Ms. Maria Elvira Maceira, Chief of the Energy Optimization and Environment Department, CEPEL Brazil
- Mr. Odilon da Gama (Filho), Director for Environment, San Salvador Power Plant, Tractabel

Q&A session and discussion with participants

12:30-14:30 Lunch

14:30-18:00 Case studies: lessons learned from large hydropower developments (2 Sessions)

14:30-16:00

Part I: Focus on case studies in Latin American countries
- Panellists outline the main lessons learned from their development of large hydropower projects
- Each case study will have perspectives from main stakeholders, outlining the key factors that secured the success in each case study
- Panellists will highlight major roadblocks that were encountered and ways they were overcome
- Business model used
- Risk assessment models used
- Sustainability assessment models used
- Environmental and social mitigation measures used
- Integration to a regional power system grid

- Current status of the case studies presented will be shared with the audience

**Moderator:** Mr. Carlos Mascimo, General Manager, Comisión Técnico Mixta de Salto Grande – Representative of CIER

**Case studies**
- "Belo Monte" (Brazil) – **Mr. Luiz Fernando Rufato**, Director of Construction, Norte Energia
- "Hidroeléctrica Aysén" (Chile) – **Mr. Juan Luis Orellana**, Assistant Manager of Hydroelectric Projects under Development, Endesa Chile
- "Salto Grande Power Plant" (Argentina-Uruguay) – **Mr. Manuel Irigoyen**, Chief of Hidrology, Comisión Técnico Mixta de Salto Grande
- "Jirau Power Plant" (Brazil) - **Mr. José Lucio Gomes**, Insititutional Directo, Energia Sustentável do Brasil

**Q&A session and discussion with participants**

16:00-16:30  **Coffee Break**

16:30-18:00  **Part II: Focus on case studies from around the world**
- Panellists outline the main lessons learned from their development of large hydropower projects
- Each case studies will have perspectives from main stakeholders, outlining the key factors that secured the success in each case study
- Panellists will highlight major roadblocks that were encountered and ways they were overcome
  - Business model used
  - Risk assessment models used
  - Sustainability assessment models used
  - Environmental and social mitigation measures used
- Current status of the case studies presented will be shared with the audience

**Moderator:** Mr. Luciano Varella, Assistant to Superintendent of International Affairs, Eletrobras, Brazil

**Case studies**
- "Eastmain 1-A – Sarcelle Powerhouses and Rupert Diversion" (Canada) - **Mr. Benoit Gagnon**, Chief, Environmental Expertise, Hydro-Québec
- "NamTheun 2 Power Plant"(Laos) - **Mr. Olivier Salignat**, Environmental and Social Expert, EDF Hydro Engineering Center, Electricité de France
- "Capanda Power Plant" (Angola) – **Mr. Carlos Nadalutti**, Assistant to the President, Furnas
- "Sayano-Shushenskaya Power Plant" (Russia) - **Mr. Evgeny Bellendir**, Director of Science, RusHydro

**Q&A session and discussion with participants**

18:00  **Adjourn**
November 23, 2011

08:00
Meet at the hotel lobby

08:00-12:15
Guided tour of the Tucuruí power plant facilities and some examples of implemented social responsibility programs

12:30-14:00
Lunch

14:00-15:30
Perspectives from regional development banks, international financial organizations on the best practices for financing large hydropower project development

- Regional development banks and international financing organizations discuss the best practices for financing of large hydropower projects.
  - Key issues covered include:
  - Key factors to secure funds for investment
  - Risk assessment models used and applied in the region.
  - Public-Private-Partnership financial models: role of the private sector? Role of the public sector?
  - Risk mitigation options
  - Requirements for attracting and retaining financing

Moderator: Professor Roberto Brandão, Senior Researcher, Grupo de Estudos do Setor Elétrico, Universidade Federal do Rio de Janeiro

Speakers
• Professor Roberto Brandão, Senior Researcher, Grupo de Estudos do Setor Elétrico, Universidade Federal do Rio de Janeiro
• Mr. Mathias Becker, Consultant, McKinsey & Co.
• Mr. Alexandre Siciliano Espósito, Power Sector Research Manager, BNDES
• Mr. Odilon da Gama (Filho), Director for Environment, San Salvador Power Plant, Tractabel

Q&A session and discussion with participants

15:30-16:00
Coffee Break

16:00-17:30
Summary of the best practices for successful large hydropower project development

- The Partnership member representatives and its partners summarize the key issues and recommendations discussed in the workshop.

Moderator: Mr. Manlio Coviello, Chief, Natural Resources and Energy Unit, ECLAC
• **Mr. Carlos Mascimo**, General Manager, Comisión Técnico Mixta de Salto Grande – Representative of CIER
• **Ms. Martine Provost**, Executive Director, Global Sustainable Electricity Partnership

*Open discussion with participants regarding the messages to take away from Dialogue*

17:30   Adjourn

20:00   Closing Dinner

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**OPTIONAL VISIT:**

**November 24, 2011**

09:00-12:00   Optional visit of neighbouring native indigenous community that has participated in the social responsibility program of the power plant and is a successful example of the positive impacts of large hydropower projects on neighbouring population and good sustainability measures.